INDIRECT AND CUMULATIVE EFFECTS ANALYSIS

I-94 East-West Corridor Study

Wisconsin Department of Transportation

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1 INTRODUCTION

The purpose of this report is to assess the potential for indirect and cumulative effects (ICE) for the I-94 East-West Corridor Study as required by National Environmental Policy Act (NEPA). The report is divided into two parts: The first half describes indirect effects, and the second half describes cumulative effects.

This report is a standalone document that is a component of the I-94 East-West Corridor Environmental Impact Statement (EIS). A full description and evaluation of the project's alternatives, costs, proposed actions and environmental impacts is provided in the EIS. A summary of this document is included in the EIS.

1.1 I-94 East-West Corridor Study Background

The I-94 East-West corridor is located in central Milwaukee County, Wisconsin, and includes 3.5 miles of I-94 from 70th Street (west terminus) to 16th Street (east terminus). The termini for this study generally match the termini for two previously completed studies of the Southeastern Wisconsin freeway system: the Zoo Interchange study, located west of the I-94 East-West Corridor study area; and the Marquette Interchange study, located to the east of the study area.

The I-94 East-West freeway is one of the busiest routes in Southeastern Wisconsin. It is a vital link to downtown Milwaukee and the western suburbs, and it is part of a major east-west Interstate route serving national, regional and local traffic for trips within and through the study area.

The I-94 East-West Corridor Study area contains the following seven interchanges:

- Service interchanges along I-94:
  - 68th Street/70th Street
  - Hawley Road
  - Mitchell Boulevard
  - 35th Street
  - 25th Street/26th Street
- Service interchanges along U.S. Highway 41 (US 41) and Miller Park Way:
  - Wisconsin Avenue/Wells Street
- System interchange:
  - Stadium Interchange (I-94/US 41/Miller Park Way)

1.2 Purpose of and Need for the Project

The purpose of and need for this project are described in EIS Section 1, Purpose and Need, for the I-94 East-West Corridor Study. The purpose and need are summarized below as a reference for this ICE report.

The I-94 East-West Corridor project would accomplish the following:

- Maintain a key link in the local, state and national transportation network.
- Address obsolete design of I-94 to improve safety, which includes potentially replacing left-hand entrances and exits and providing proper weaving distances between exit and entrance ramps.
- Replace deteriorating pavement. The original pavement from the 1960s construction is still in place. Although there have been three pavement overlays, each has a shorter life span than the previous overlay.
- Accommodate future traffic volumes at an acceptable level of service.

A combination of factors, including the following, demonstrates the transportation improvement need in the I-94 East-West corridor:

- Regional land use and transportation planning
  - The Southeastern Wisconsin Regional Planning Commission's (SEWRPC's) 2003 *A Regional Freeway Reconstruction Plan for Southeastern Wisconsin* identifies the need for additional freeway traffic lanes on I-94 (SEWRPC 2003).
- System linkage and route importance
  - I-94 is a major east-west freeway link across the northern United States, connecting Detroit, Chicago, Milwaukee, Madison, St. Paul, Minneapolis and Billings, Montana.
  - I-94 is part of the National Highway System and is a designated federal and state long truck route.
  - I-94 is a designated "backbone" route in WisDOT's *Connections 2030 Long-Range Multimodal Transportation Plan* (WisDOT 2009).
  - I-94 connects Milwaukee County's eastern and western freeway systems and is an important commuter route.
  - I-94 provides a connection to several local destinations.
- High crash rates
  - Crash rates in the corridor are at least two to three times higher than the statewide average for large urban freeways, and several sections are more than four times higher than the statewide average.
  - Only two sections of the corridor have crash rates below the statewide average.
- Existing freeway conditions and deficiencies associated with:
  - This segment of I-94 was completed in 1962. Over the years, the concrete pavement has become worn and cracked. WisDOT resurfaced I-94 in the mid-1970s, late 1990s, and again in 2011–2012, which returned a smooth riding surface to the roadway but did not address the pavement cracks or voids in the gravel base under the pavement. In addition to the physical condition, there are other substandard design elements, such as inadequate ramp spacing. Perhaps the most notable existing design issue is the combination of left- and right-hand entrance and exit ramps that impact traffic flow as drivers are required to weave across several lanes, which can be unsafe.
- Existing and future traffic volumes
  - This segment of I-94 carries 143,000 to 160,500 vehicles on an average weekday.
  - By 2040, traffic volumes are expected to rise to about 160,000 to 186,000 vehicles per day, which represents a 7 percent to 14 percent traffic increase over the current conditions.

1.3 Freeway Corridor Alternatives

WisDOT and the Federal Highway Administration (FHWA) developed and evaluated a wide range of alternatives for this project (-documented in EIS Section 2, Alternatives Considered). Several alternatives were screened and are no longer being considered. The No-Build Alternative and four Modernization Alternatives remain under consideration and are evaluated in this report and the EIS. Table 1 summarizes the Modernization Alternatives that remain at the time of this report.

At the beginning of the study, four segments (West, Cemetery, Stadium Interchange and East) comprised the I-94 East-West corridor study area, and multiple alternatives were developed for each segment. After screening out many alternatives, WisDOT consolidated the four segments into two: a West Segment (west of the Stadium Interchange to 70th Street) and an East Segment (the Stadium Interchange east to 16th Street). Through the alternatives screening process, two alternatives in both the West and East segments were retained for detailed study. All of the alternatives are interchangeable.

The Double Deck alternative and the At-Grade alternative remain under consideration for the West Segment. Both alternatives would provide eight travel lanes. The Double Deck alternative includes interchanges at 68th/70th streets and Hawley Road, while the At-Grade alternative includes only the interchange at 68th/70th streets.

The Off-Alignment and On-Alignment alternatives remain under consideration for the East Segment. Both would provide eight travel lanes, and both would provide an interchange at 35th Street at or near 27th Street, and a new embedded interchange within the Stadium Interchange.

Transportation System Management (TSM) measures discussed in EIS Section 2.4.1, Region-Wide TSM Elements, will be implemented as part of any of the remaining alternatives.

The No-Build Alternative does not include any safety improvements, capacity improvements, or pavement replacement. Only maintenance and minor improvements would be completed. While the No-Build Alternative does not meet the purpose of nor need for this project, it provides a baseline for comparing impacts related to the Modernization Alternatives.

Table 1: Modernization Alternatives Retained for Evaluation in the EIS and ICE Report

Segment	Alternative	Description
West Segment (70th Street to Yount Drive, just west of Stadium Interchange)	At-Grade	• Reconstructs I-94 with 8 travel lanes (4 in each direction) at essentially the same elevation as the existing freeway. • Provides narrow driving lanes (11 feet) and narrow shoulders (minimum of 3 feet) through cemetery area (Hawley Road to Zablocki Drive). East and west of the cemeteries, the freeway would have standard 12-foot lanes and full shoulders. • Ramps at the Mitchell Boulevard interchange would be removed and replaced by a new interchange imbedded within the Stadium Interchange. An underpass at Mitchell Boulevard would be provided. • Hawley Road interchange has two options. One option would remove all access and provide and underpass. The other option would provide partial access to and from the west only. • Maintains an underpass at 64th Street. • Reconstructs 68th/70th Street interchange in its current configuration as a split diamond interchange. Entrance and exit ramps would be longer than the existing ramps.
	Double Deck	• Reconstructs I-94 with 8 travel lanes (4 in each direction) and constructs a double deck (freeway lanes would be stacked with one set of freeway lanes elevated over the other) in the area between the cemeteries to avoid direct impacts. The transition back to side-by-side freeway lanes would occur at about 64th Street. • The Double Deck Alternative has two options. Under the “all up” option the top level (eastbound roadway) of the freeway would be about 30 feet above the existing freeway elevation and the bottom level (westbound roadway) would be at about the same elevation as the existing freeway. Under the “partially down” option the top level (eastbound roadway) would be 22 to 24 feet above the existing freeway and the bottom level (westbound roadway) would be about 6 to 8 feet below the existing freeway elevation. • Ramps at the Mitchell Boulevard interchange would be removed and replaced by a new interchange imbedded within the Stadium Interchange. An underpass at Mitchell Boulevard would be provided. • Zablocki Drive would be shifted east where it would be parallel, but separate form Mitchell Boulevard. An underpass at Zablocki Drive would be provided. • Maintains entrance and exit ramps at Hawley Road interchange. • Reconstructs the 68th/70th Street split diamond interchange and Hawley Road interchange with configurations similar to existing conditions. Provides collector-distributor roads that connect the interchanges.

Segment	Alternative	Description
East Segment (Yount Drive, just west of Stadium Interchange, to 16th Street)	Off-Alignment	• Reconstructs I-94 with 8 travel lanes (4 in each direction). East of 32nd Street, I-94 would be constructed several hundred feet south of its current alignment. I-94 would rejoin its existing alignment near 18th Street. • Reconstructs the Stadium Interchange as a four-level hybrid service interchange and a system interchange. All of the exit ramps from I-94 to US 41/Miller Park Way would be free-flow ramps with no traffic signals. The ramps from southbound US 41 to eastbound I-94 and from northbound Miller Park Way to westbound I-94 would be controlled by a traffic signal. Also, a traffic signal would control through traffic on US 41/Miller Park Way. • Underneath the Stadium Interchange, new on- and off-ramps to 44th Street and a new local street (tentatively referred to as 46th Street) would be constructed. The ramps would replace the interchange that would be removed from Mitchell Boulevard. • Reconstructs 35th Street interchange with braided ramps between the Stadium Interchange and the 35th Street interchange. • Reconstructs 27th Street interchange with braided ramps between the 35th Street and 27th Street interchanges. The 27th Street interchange would be reconstructed so that all ramps directly connect to 27th Street, a state highway.
	On-Alignment	• Reconstructs I-94 with 8 travel lanes (4 in each direction). East of 32nd • Street, the freeway would remain close to its current alignment and be widened to the south. • Stadium Interchange would be the same as the off-alignment option. • The two options for the new 44th Street on- and off-ramps are the same as the off-alignment option. • Reconstructs 35th Street interchange with braided ramps. • The on- and off-ramps near 27th Street would remain where they are today at 25th, 26th and 28th Streets, and St. Paul Avenue.

2 INDIRECT EFFECTS ANALYSIS

The Council on Environmental Quality (CEQ) defines indirect effects as project impacts "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems." (40 CFR 1508.08)

The *WisDOT Guidance for Conducting an Indirect Effects Analysis* was used to guide the evaluation of indirect effects for the I-94 East-West corridor (WisDOT 2007). The WisDOT guide is based on the methodology outlined in the National Cooperative Highway Research Program (NCHRP) Report 466, *Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects* (National Cooperative Highway Research Program 2002).

The analysis used the following six-step methodology as provided in the guide:

1. Scoping, selecting activities and determining the study area.
2. Inventory the study area and notable features.
3. Identify the impact-causing activities of the proposed project alternatives.
4. Identify the potentially significant indirect effects.
5. Analyze the indirect effects and evaluate assumptions.
6. Assess consequences and identify mitigation activities.

2.1 Step 1: Scoping, Selecting Activities, and Determining Study Area

The first step of the analysis included scoping, selecting the appropriate activities (including public involvement) to conduct the analysis and determine the indirect effects study area and timeframe for the analysis.

2.1.1 Scoping Indirect Effects

The scoping process to determine the potential for indirect effects considered the project's actions, its purpose and need, and its geographic setting. The corridor links the region's major economic centers in Milwaukee and Waukesha counties, and it provides access to the regional freeway system for local business districts that are being redeveloped; therefore, the study team determined that the project has the potential to influence land use patterns. The team also determined that the encroachment of transportation infrastructure resulting from the project has the potential to indirectly affect the quality of neighborhoods, the vitality of business areas, and the quality of natural and historic resources adjacent to the project area.

Based on WisDOT's indirect effects guidance document, the study team determined a qualitative approach based on local and regional trend data, land use and economic development plans, natural and historic resource inventories, and input from local and regional stakeholders would be used for the indirect effects analysis.

2.1.2 Stakeholder Input

WisDOT interviewed stakeholders early on in the analysis process (February and March 2013), meeting with local government representatives and economic development organizations to collect information and identify a preliminary indirect effects study area. Appendix A contains a summary of the meetings.

After early analysis, WisDOT conducted a focus group meeting on June 6, 2013, to obtain input on the indirect effects analysis and to finalize the study area boundary. The meeting included representatives from public and private sectors such as local planners, regional planning commission staff, economic development organizations, representatives of large employers and real estate professionals. WisDOT sought participants' feedback on land use and development trends; indirect effects study area delineations; and potential indirect effects. Appendix B contains a summary about the focus group meeting.

WisDOT held a series of meetings in August 2013 with private-sector real estate professionals to obtain additional feedback on local and regional development trends and potential land use effects of the I-94 East-West corridor alternatives. Appendix C contains a summary of the meetings. WisDOT also met on Aug. 29, 2013, with stakeholders who represent downtown Milwaukee. The purpose of this meeting was to seek feedback about potential indirect effects to the downtown area. Appendix D contains a summary of the meeting.

Public and agency feedback that was collected as part of the overall EIS process for the I-94 East-West corridor study was also reviewed and considered in the indirect effects analysis. This includes comments from public meetings, government agency correspondence and meetings, stakeholders meetings, community and technical advisory committee meetings and elected official briefings. See EIS Section 5, Community Involvement and Agency Coordination, for information about the meetings held and comments received for the I-94 East-West corridor study.

2.1.3 Determining Indirect Effects Study Area

The study area is a defined geographic area that may experience indirect effects as a result of the proposed I-94 East-West corridor project. Limits for the analysis are extended beyond the project corridor because indirect effects can occur at some distance from the proposed project. This section defines the indirect effects study area and discusses the methodology the study team used to determine the boundaries. It also includes some of the key assumptions, data and stakeholder feedback that were used to delineate the boundaries.

2.1.3.1 Indirect Effects Study Area Boundaries

Two study areas – a primary and secondary – were evaluated for the indirect effects analysis.

The primary study area, shown in Exhibit 1, includes lands within portions of Milwaukee, West Milwaukee, Wauwatosa and West Allis that are adjacent to the project corridor. The primary study area is generally bounded by Lake Michigan to the east, 84th Street to the west, North Avenue to the north and Lincoln Avenue to the south.

The primary study area is closest to the transportation project, so it identifies locations that have the greatest likelihood for indirect effects. It encompasses the local neighborhoods, business districts and natural, recreational and historic resources that are most directly served by the freeway and its interchanges, and this area would be most susceptible to changes in access and mobility along the I-94 corridor past the transportation planning horizon of 2040. The primary study area also includes residential neighborhoods, business districts, natural resources and historic resources that could be indirectly affected by the encroachment of infrastructure. The most detailed information was collected for the primary study area.

The secondary study area, shown in Exhibit 2, includes the communities within Milwaukee and Waukesha counties. The purpose of the secondary study area is to evaluate intraregional land use trends that may be influenced by the I-94 East-West corridor. The study team includes these two counties for the regional analysis because I-94 is a major transportation link between the region's two largest counties in terms of population and employment, and past trends show the largest redistribution of population and employment has occurred between these two counties.

2.1.3.2 Methodology for Determining Study Area Boundaries

The study team used a combination of accepted techniques for delineating the indirect effects study areas as discussed in the *WisDOT Guidance for Conducting an Indirect Effects Analysis* (WisDOT 2007) and NCHRP's Report 466 (National Cooperative Highway Research Program 2002). The study team primarily relied on an interview/public involvement approach that involved delineating preliminary boundaries based on professional judgment and data collection and then seeking feedback on the boundaries from stakeholders familiar with local and regional conditions. The study team also incorporated watershed and commuter boundary techniques to make sure the study areas include the full range of potential indirect effects. Developing the boundary was an iterative process that involved several modifications to the study area throughout the analysis process.

The following bullets summarize the general steps that were taken to delineate the study area boundary:

- Developed an initial primary and secondary study area based on a preliminary review of the project's components, socioeconomic trend data, and local and regional land use plans.
- Sought feedback on the indirect effects study areas by conducting stakeholder meetings with government representatives and economic development organizations (see Appendix A for meeting notes).
- Modified the study areas based on more extensive trend research and identification of notable features. This included a review of commuting patterns and watershed boundaries (see Section 2.2, Step 2: Inventory the Study Area and Notable Features).
- Revisited assumptions for the primary and secondary study areas and modified the areas based on evaluation of indirect effects (see Section 2.4 for evaluation of effects).
- Obtained input on the study area boundaries at the June 6, 2013, focus group meeting and made modifications based on focus group feedback (see Appendix B for a focus group meeting summary).
- Sought additional feedback on the study area boundaries and potential effects based additional stakeholder input from downtown stakeholders and local real estate professionals (see Appendix C and Appendix D).
- Finalized and reaffirmed the boundaries based on additional analysis of indirect effects and updates to the project alternatives.

Exhibit 1: Indirect Effects Primary Study Area

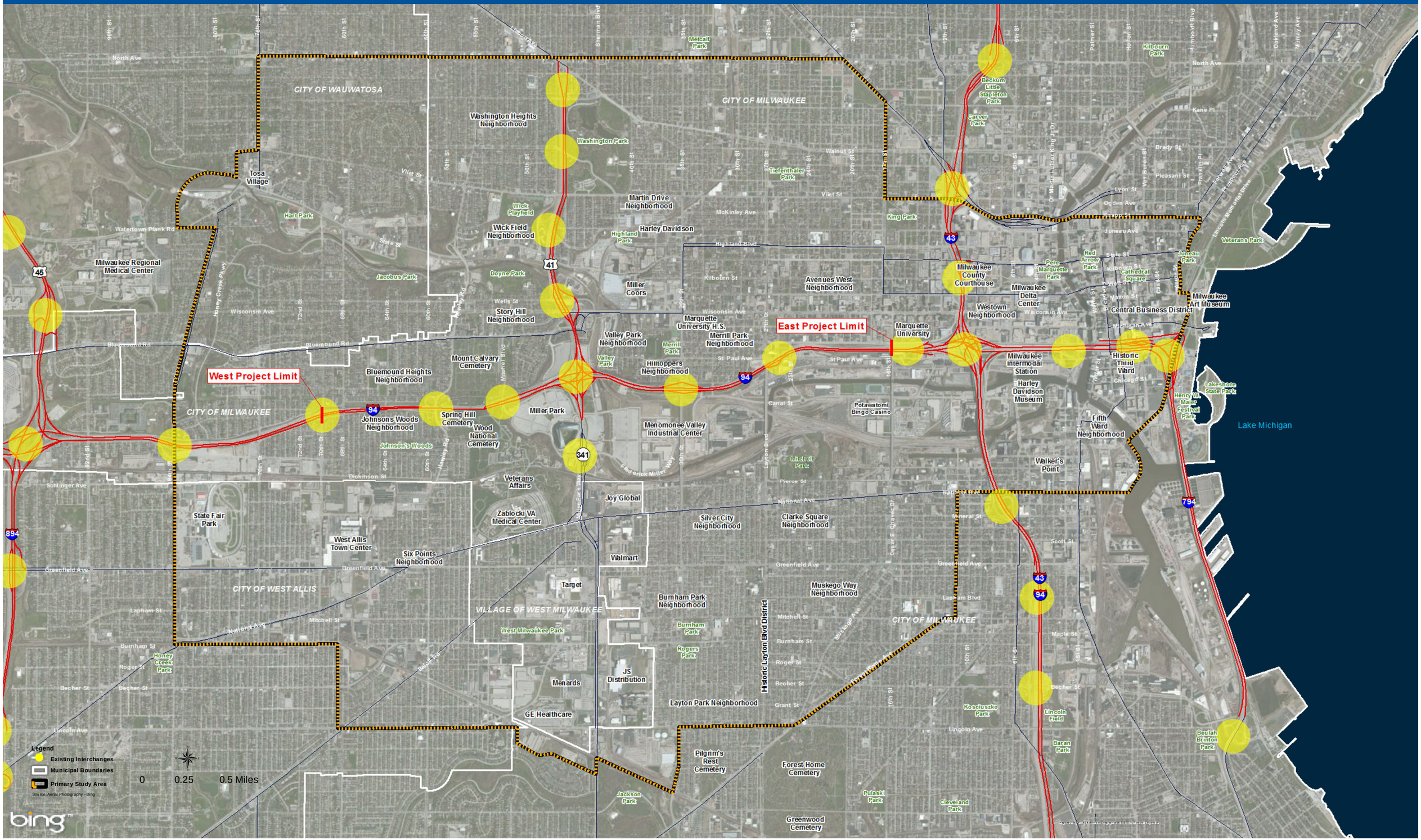
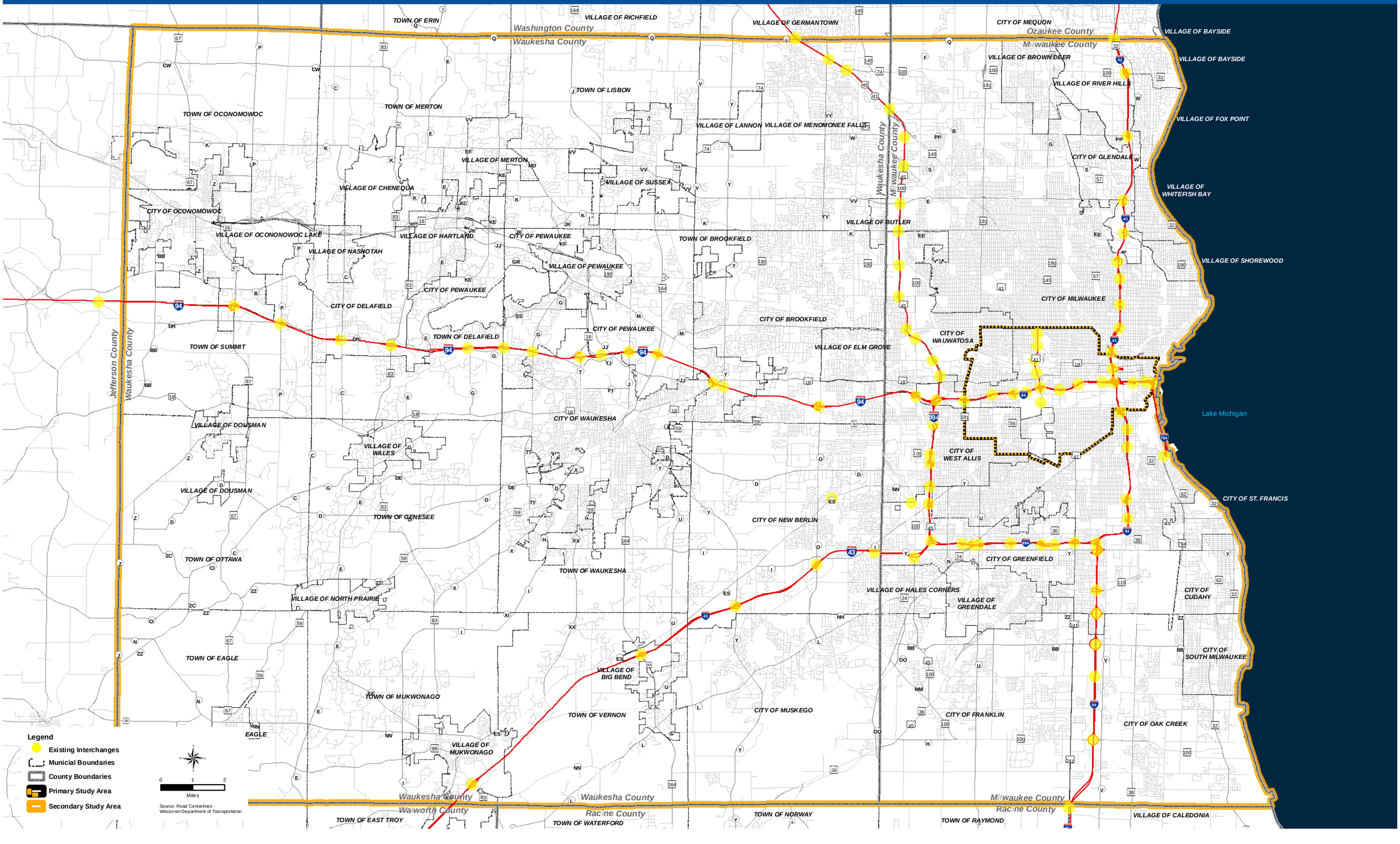


Exhibit 2: Indirect Effects Secondary Study Area



2.1.3.3 Study Area Delineations: Decisions/Assumptions

The study team considered a range of factors to delineate the indirect effects study areas. The first factor was the proposed project's actions and its ability to increase mobility and accessibility, which research has shown can affect land use and economic patterns over time by making land more desirable for residential, recreational and employment uses (Strategic Highway Research Program 2012). The I-94 East-West corridor project would improve mobility and travel time reliability by adding a new travel lane in each direction. Also, it would make modifications to existing interchange access points along the corridor (see Section 2.3 for more information about the project's impact causing activities). These effects could have both local and regional implications, and as a result, the study team determined primary and secondary study areas as described above would be evaluated for the indirect effects analysis.

The following subsections summarize additional key pieces of information that led to decisions about the selection of the boundaries for the primary and secondary study areas.

Primary Study Area Boundaries

As discussed previously, the primary study area identifies the local neighborhoods, business districts, and natural, historic and recreational resources that are served most directly by the freeway and its interchanges, and it is the area that would be most susceptible to changes in access and mobility along the I-94 corridor. As discussed previously, the primary study area boundaries were determined based on study area research and input from local stakeholders.

The following paragraphs describe some of the key assumptions used to delineate the western, eastern, northern and southern boundaries of the primary study area.

Western Boundary

The western boundary of the primary study area is roughly 84th Street. This line essentially delineates the areas that would be mostly influenced by the Zoo Interchange reconstruction project and the areas primarily influenced by the I-94 East-West corridor project. Development to the west of 84th Street such as the Milwaukee Regional Medical Center and Milwaukee County Research Park in Wauwatosa, and the Highway 100 commercial corridor in West Allis, are more susceptible to land use effects resulting from access modifications for the Zoo Interchange reconstruction.

Eastern Boundary

The eastern boundary of the primary study area incorporates downtown Milwaukee and extends to Lake Michigan. Downtown was included in the primary study area because of its dense concentration of jobs and its many regional recreational, entertainment and cultural destinations. Because downtown borders the lakefront, no additional lands beyond downtown could be included.

Northern Boundary

The northern boundary of the primary study area is roughly North Avenue. It includes the neighborhoods and business districts that are most closely linked to the I-94 East-West corridor via north-south arterials (such as US 41, Hawley Road and 68th Street) and are undergoing concerted redevelopment and revitalization efforts. Examples include the State Street corridor in Wauwatosa; Miller Valley; a portion of the 30th Street Industrial Corridor; Avenues West; and various commercial corridors along Vliet Street and North Avenue.

Areas north of North Avenue were excluded from the primary study area because arterial street connections to I-94 beyond North Avenue become more circuitous, and therefore land use and development patterns north of North Avenue are less influenced by I-94 and are linked more to neighborhood-level conditions and other arterial connections to the regional freeway system.

Southern Boundary

The southern boundary of the primary study area is roughly Lincoln Avenue. It incorporates the neighborhoods and business districts that are most closely linked to the I-94 East-West corridor and that are undergoing concerted redevelopment and revitalization efforts. Examples include the Layton Boulevard West, Clarke Square and Muskego Way neighborhoods; commercial/industrial areas along Miller Park Way in West Milwaukee; and business districts in West Allis.

An extensive residential area is located south of the primary study area and west of 27th Street. This area was not included because the neighborhoods are considered stable middle-class neighborhoods that are not susceptible to change within the study's timeframe. Residential and commercial areas to the east of 27th Street and south of the primary study area boundary were not included because of their proximities and stronger relationships with the I-94 North-South corridor. The largest business district south of the primary study area is along the 27th Street corridor between approximately Cleveland Avenue and I-894. This area was not included because its land use and development is more closely linked to the I-894 and I-94 North-South corridors.

Secondary Study Area Boundaries

The study team recognized that the I-94 East-West corridor is an important transportation corridor within the region that many travelers utilize for work trip; access to goods and services; visits to recreational, entertainment or cultural destinations; or business shipment deliveries. As a result, the I-94 project could benefit mobility throughout the region. For example, freight users would benefit from less travel delay along this corridor and improve on-time deliveries. The region's labor force would more easily access the region's employment centers, and employers could be able to draw from a larger pool of workers. However, research has shown that isolating economic impacts from transportation projects within large, growing metropolitan areas is difficult, as these impacts become more dispersed and obscured by other economic influences further removed from the transportation investment (Strategic Highway Research Program 2012). As a result, the study team determined that the regional analysis must be narrowed to identify the most significant, indirect land use effects.

To help determine the extent of the secondary study area, the study team evaluated socioeconomic and land use information for the seven-county Southeastern Wisconsin region. Table 2 shows some of the key pieces of data that were used to make the secondary study area determination. Because historic data trends show that population and employment have been decentralizing for several decades from the urban core in Milwaukee County, the data identified in Table 2 is from the Milwaukee County perspective. It shows the following data sets:

- The number of workers who work in Milwaukee County from other counties in the region.
- The average weekday person trips to Milwaukee County from the other counties in the region.
- The net population migration from Milwaukee County to other counties in the region.

The data in Table 2 shows that while Ozaukee, Washington and Racine counties exhibit some influence on Milwaukee County, it is Waukesha County that exhibits the largest influence on Milwaukee County. Of the workers from other counties that are employed in Milwaukee County, the majority (57 percent) are from Waukesha County. Of the average weekday person trips that are coming into Milwaukee County from other counties in the region, 62 percent are from Waukesha County. Furthermore, the most significant net population migration losses from Milwaukee County have been to Waukesha County, accounting for a net loss of over 30,000 people between 2000 and 2010.

Table 2: Regional Workplace, Travel Pattern and Net Migration Trends

County	Work in Milwaukee County (2010)		Average weekday persons trips to Milwaukee County (2001)		Net Population Migration from Milwaukee County (2000 to 2010)	
	Number	Percent	Number	Percent	Number	Percent
Waukesha	61,602	57	239,700	62	-30,340	-58
Ozaukee	14,515	13	55,800	14	-7,230	-14
Washington	14,123	13	38,100	10	-9,250	-18
Racine	15,196	14	45,900	12	-5,400	-10
Kenosha	3,256	3	9,000	2	710	1
Walworth	2,761	3	7,700	2	-640	-1
Total	**108,692**	**100**	**388,500**	**100**	**52,150**	**100**

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates 2006-2010.
Note: Data does not include geographic areas outside the seven-county Southeastern Wisconsin region.
Note: Kenosha County was the only county in the region that experienced a net population loss to Milwaukee County.

Table 3 shows the projected population and employment growth for the seven counties in the region. SEWRPC projections show Waukesha County would not necessarily be the fastest growing county in the region, but in terms of actual numbers it would experience the largest gains in population and employment, and it would receive the largest percentage of the region's anticipated population and employment growth. SEWRPC projects Waukesha County's population will increase by 74,500 between 2010 and 2040, capturing 28 percent of the region's projected population growth (265,800). SEWRPC projects Waukesha County's employment levels will increase by 69,500 jobs between 2010 and 2050, capturing 33 percent of the region's projected employment growth (210,300).

Table 3: Projected Population and Employment Growth in the Region

County	Population Growth (2010 to 2040)			Employment Growth (2010 to 2050)		
	Difference	Percent Increase	Percent of Regional Growth	Difference	Percent Increase	Percent of Regional Growth
Milwaukee	25,500	3	10	33,500	6	16
Waukesha	74,500	19	28	69,500	26	33
Ozaukee	18,300	21	7	16,800	32	8
Washington	38,400	29	14	23,500	37	11
Racine	25,500	13	10	24,000	27	11
Kenosha	54,300	33	20	26,400	35	13
Walworth	29,300	29	11	16,600	32	8
Total Region	**265,800**	**13**	**100**	**210,300**	**18**	**100**

Source: SEWRPC. The Population of Southeastern Wisconsin. Technical Report No. 11 (5th Edition). 2013.
Source: SEWRPC. The Economy of Southeastern Wisconsin. Technical Report No. 10 (5th Edition). 2013.

Based on this information, the study team determined the secondary study area should evaluate Milwaukee and Waukesha counties because they comprise the area within the region that has the greatest potential for intraregional land use shifts in development. The selection of Waukesha and Milwaukee counties for the secondary study area is also consistent with stakeholder feedback. As discussed in Section 2.4.1.1 of this report, some stakeholders were concerned that adding new travel lanes to the freeway could facilitate development in Waukesha County by reducing commute times to downtown Milwaukee. The likelihood and magnitude of this potential effect is evaluated and considered in more detail in Section 2.4.1.1 of this report.

2.1.4 Analysis Timeframe

One of the goals of scoping is to determine a timeframe for the analysis. This is important because research has shown that land use and economic impacts related to transportation projects can occur over time, and those different impacts can appear at different times (Strategic Highway Research Program 2012). According to NCHRP Report 466, the timeframe for an indirect effects analysis should be short enough in duration to anticipate reasonably foreseeable events, but also long enough to capture changes that may occur over several business cycles (National Cooperative Highway Research Program 2002). Report 466 states that most indirect effects assessments set a time horizon equal to the typical transportation planning horizon of about 20 to 25 years. This timeframe typically is consistent with the planning horizons used for regional land use and transportation planning purposes.

Based on the guidance and preliminary information collected during the scoping process, the study team determined the timeframe for the indirect effects analysis is 2040, about 20 years after the implementation of the proposed I-94 East-West corridor project. This is long enough for indirect effects to unfold but it would not be so far into the future that the effects become too difficult for the study team to reasonably anticipate, or for local and regional stakeholders to provide meaningful feedback.

Also, the study team determined sufficient data and plans are available to assess anticipated conditions in 2040. The current regional land use and transportation plan time horizons are 2035, which leaves about a five-year gap. However, other resources are available to assess trends beyond the 2035 timeframe. The relevant 2035 regional documents and plans include the following:

- SEWRPC – A Regional Transportation System Plan for Southeastern Wisconsin: 2035
- SEWRPC – A Regional Land Use Plan for Southeastern Wisconsin: 2035
- SEWRPC – A Regional Housing Plan for Southeastern Wisconsin: 2035

Trend data and plans available beyond the 2035 timeframe:

- SEWRPC – The Population of Southeastern Wisconsin (provides population and household in five year increments by county through 2050.)
- SEWRPC – The Economy of Southeastern Wisconsin (provides employment and labor force projections by county for 2050.)
- Wisconsin Department of Administration (WDOA) – Population and household projections: 2010 – 2040 (provides population and household projections by county and municipality in five year increments through 2040).

2.2 Step 2: Inventory the Study Area and Notable Features

The purpose of Step 2 is to collect data and information to understand the general trends and goals associated with social, economic, natural and historic resources within the study areas. Documenting this information is important because research shows that transportation investments result in land use changes only in the presence of other supportive non-transportation factors such as local government development policies and incentives; availability of infrastructure; the amount of developable land; and the overall economic conditions of an area (Strategic Highway Research Program 2012).

This section contains the following data and information for the primary and secondary study areas:

- Socioeconomic data and trends
- Existing land use patterns
- Development trends and planned land use
- Notable natural and historic resources

2.2.1 Socioeconomic Data and Trends

This section reviews the following socioeconomic data sets for the primary and secondary study areas: population, employment, racial composition, persons in poverty, county-to-county worker flows, means of transportation to work and vehicles available.

The socioeconomic data for the primary study area was obtained by compiling the census tracts that are within or intersect with the primary study area boundary. If census tract data was not available for a particular topic, then the next largest unit of geography was used and specified within the relevant subsection. The data tables for the secondary study area were collected on a countywide basis. The secondary study area exhibits show information for the Milwaukee and Waukesha counties by census tract.

2.2.1.1 Population

This section provides an overview of past and projected population trends for the primary and secondary study areas.

Primary Study Area Population

Past Population

Table 4 shows the population between 2000 and 2010 in the primary study area census tracts (U.S. Census Bureau 2014). The primary study area had a total population of 175,932 in 2010, which was an increase of 887 people since 2000. The populations for the Milwaukee, West Allis and West Milwaukee portions of the primary study area increased slightly by 452, 504 and 56 people, respectively. The population of the Wauwatosa portion of the primary study area declined by 125 people.

Table 4: Primary Study Area Population – 2000 to 2010

Location	2000	2010	Absolute Change	Percent Change
City of Milwaukee	134,590	135,042	452	0.3
City of West Allis	17,363	17,867	504	2.9
Village of West Milwaukee	4,249	4,305	56	1.3
City of Wauwatosa	18,843	18,718	-125	-0.7
Primary Study Area Total	**175,045**	**175,932**	**887**	**0.5**

Source: U.S Census Bureau, 2000 and 2010 Census of Population. Census Tracts

Exhibit 3 shows a map of the population change between the 2000 and 2010 by census tracts in the primary study area. The fastest rate of growth occurred in downtown Milwaukee, and the Third Ward and Fifth Ward neighborhoods. The west side of downtown and the Avenues West and Near South Side neighborhoods in the City of Milwaukee also had population increases. Population increases in West Allis occurred in the Six Points neighborhood and adjacent to Wisconsin State Fair Park. The overall population of the Wauwatosa portion of the primary study area declined slightly, but the Wauwatosa Village area along State Street had population increases. The most significant population declines occurred in the City of Milwaukee neighborhoods north of I-94; east of the Stadium Interchange; and west of I-43 in the Merrill Park and Valley Park neighborhoods.

Exhibit 3: Primary Study Area Population Change - 2000 to 2010

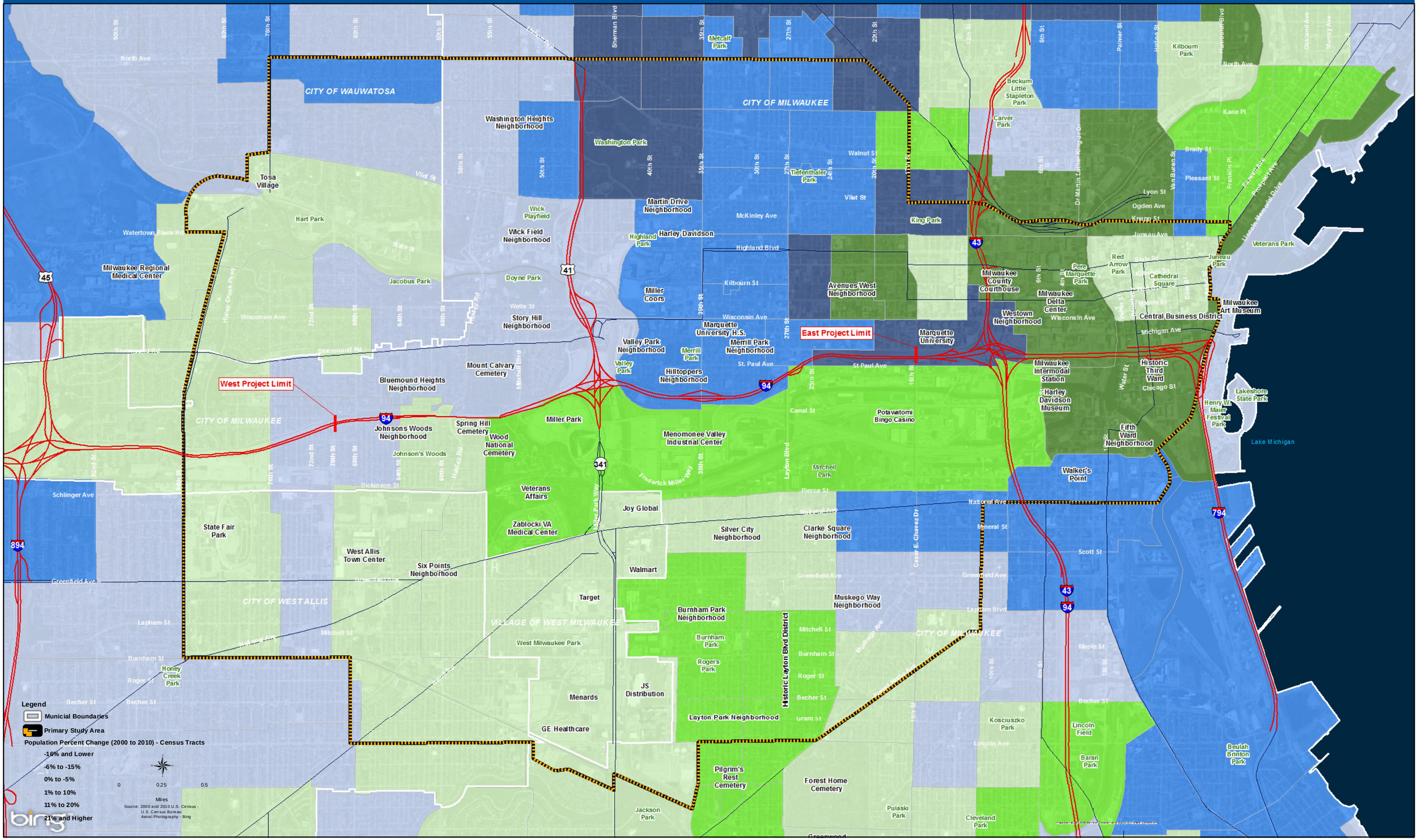
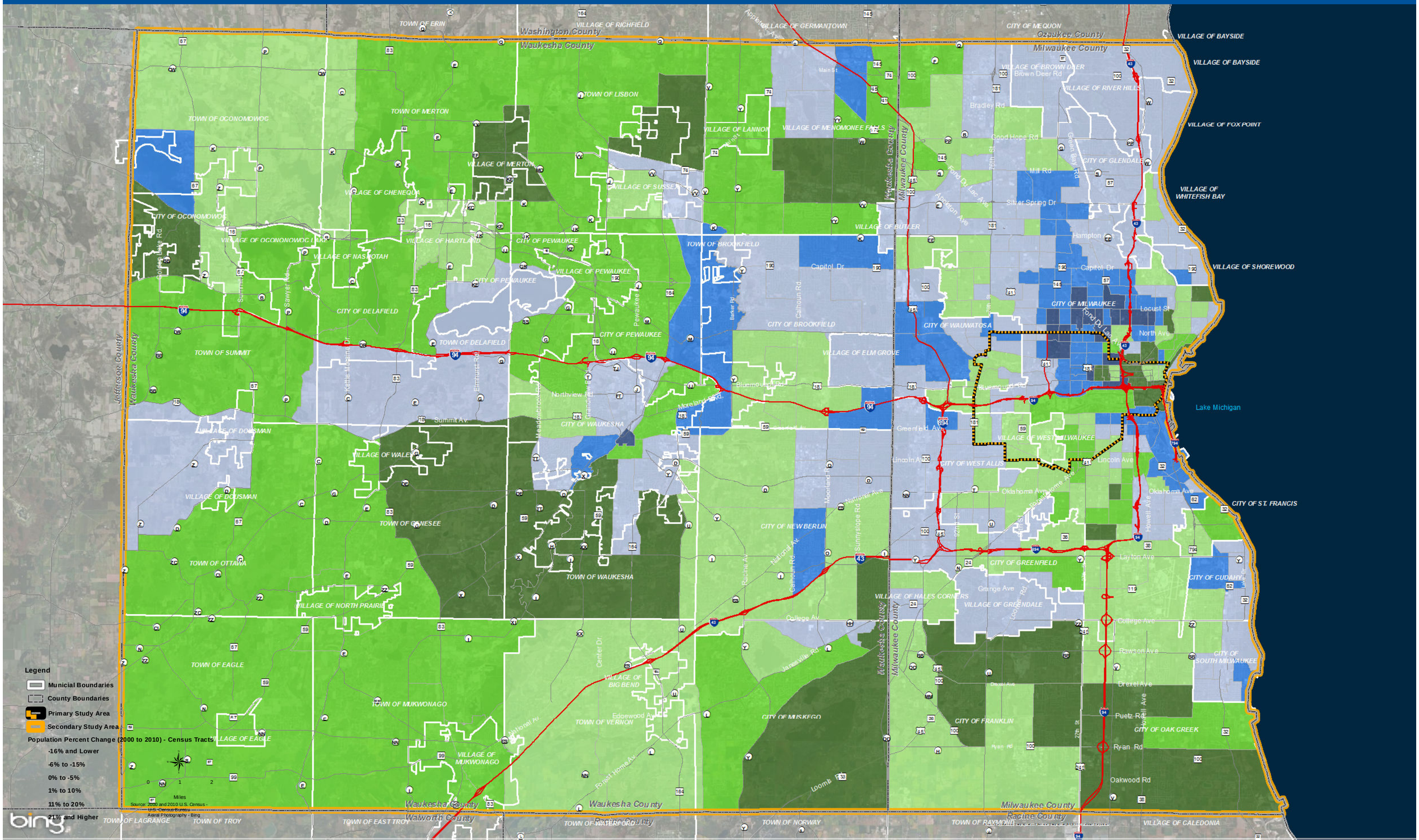


Exhibit 4: Secondary Study Area Population Change - 2000 to 2010



Projected Population

Population projections are not available at a census tract level, so population projections for the entire primary study area communities were collected to gauge future population levels for the primary study area. The population projections presented in Table 5 show the study area communities are expected to collectively experience a small increase in population between 2010 and 2040 (WDOA 2013).

Table 5: Corridor Community Population Projections – 2010 to 2040

Location	2010 Census	2040 Projection	Absolute Change	Percent Change
City of Milwaukee	594,833	627,400	32,567	5.5
City of West Allis	60,411	61,850	1,439	2.4
Village of West Milwaukee	4,206	4,580	374	8.9
City of Wauwatosa	46,396	49,270	2,874	6.2

Source: Municipal Population Projections, 2010-2040. WDOA, Division of Intergovernmental Relations, Demographic Services Center. 2013.

The study team reviewed the comprehensive plans for the communities within the primary study area to identify another set of population projections. The summarized findings are as follows:

- City of Milwaukee: 622,738 by 2025 (City of Milwaukee 2010)
- City of West Allis: 67,290 by 2030 (City of West Allis 2011)
- Village of West Milwaukee: 4,991 by 2025 (Milwaukee 2009)
- City of Wauwatosa: 54,039 by 2030 (City of Wauwatosa 2008)

Secondary Study Area Population

Past Population

Milwaukee and Waukesha counties are located within the Southeastern Wisconsin region that includes Milwaukee, Waukesha, Racine, Kenosha, Ozaukee, Washington and Walworth counties. In 2010, the region had a population of 2,019,970, which was a 4.6 percent increase since 2000 (SEWRPC 2013). Milwaukee County is the most populous county in the region, containing 947,735 people in 2010. Waukesha County has the second largest population in the region with 389,891 people in 2010. The two counties combined contained 66 percent of the region's population in 2010 (SEWRPC 2013).

Table 6 shows the historic population trends for the two counties (SEWRPC 2013). Milwaukee County's population peaked in 1970 at over 1 million people. The most significant population loss (-89,261) occurred in Milwaukee County between 1970 and 1980. Milwaukee County continued to lose population during the 1980s and 1990s, but at a slower pace compared with the 1970s. The population decline reversed between 2000 and 2010, when Milwaukee County added 7,571 people.

Waukesha County more than doubled its population between 1960 and 2010. The rapid growth of the county is evident going back to the 1950s. Between 1950 and 1960 the county added over 72,000 people and between 1960 and 1970 the county again added over 73,000. The county also experienced fairly rapid growth during the 1970s and 1990s, but had more moderated growth during the 1980s and 2000s.

According to SEWRPC, the largest historic shift of population within the region has occurred between Milwaukee and Waukesha counties (SEWRPC 2013). In 1960, Milwaukee County contained 65.8 percent of the region's population, and in 2010 it contained 46.9 percent. Waukesha County's percentage of the regional population increased during the same timeframe from 10.1 percent to 19.3 percent.

Table 6: Past Population for Milwaukee and Waukesha Counties – 1960 to 2010

	Milwaukee County				Waukesha County			
		Change from Previous Decade		Percent of Region Total		Change from Previous Decade		Percent of Region Total
Year	Number	Absolute Number	Percent Change		Number	Absolute Number	Percent Change	
1960	1,036,041	164,994	18.9	65.8	158,249	72,348	84.2	10.1
1970	1,054,249	18,208	1.8	60.0	231,335	73,086	46.2	13.2
1980	964,988	-89,261	-8.5	54.7	280,203	48,868	21.1	15.9
1990	959,275	-5,713	-0.6	53.0	304,715	24,512	8.7	16.8
2000	940,164	-19,111	-2.0	48.7	360,767	56,052	18.4	18.7
2010	947,735	7,571	0.8	46.9	389,891	29,124	8.1	19.3

Source: SEWRPC. The Population of Southeastern Wisconsin. Technical Report No. 11 (5th Edition). 2013.

Exhibit 4 shows the population percent change between 2000 and 2010 by census tracts for Milwaukee and Waukesha counties. The greatest percent increases in Milwaukee County occurred in Oak Creek and Franklin, in Milwaukee's downtown neighborhoods, and in some of Milwaukee's south side neighborhoods. The largest population percent increases in Waukesha County typically occurred in areas where land is still available for development such as Pewaukee, Delafield, Muskego and Oconomowoc and in several of the townships. Slight population declines typically occurred in the existing urbanized areas of the county including Brookfield, Elm Grove, portions of New Berlin and portions of the City of Waukesha.

Projected Population

Table 7 shows SEWRPC's population projections for Milwaukee County, Waukesha County and the region (SEWRPC 2013). The region's population is expected to increase by 334,000, or 16.5 percent, between 2010 and 2050. The projected rate of growth is only slightly higher than the previous 40-year period (1970 to 2010) when the region increased its population by 15 percent.

As shown in Table 7, Milwaukee County is expected to add 28,969 persons between 2010 and 2050, which is a 3.1 percent increase. This is a change from the previous 40-year period (1970 to 2010), when Milwaukee County lost 10.1 percent of its population.

Waukesha County is expected to add 91,478 persons by 2050, which is a 23.5 percent increase. This rate of growth is robust, but it is substantially slower in comparison to the previous 40-year period (1970 to 2010), when Waukesha County's population increased by 68.5 percent.

Table 7: SEWRPC Population Projections – Milwaukee and Waukesha Counties – 2050

Area	2010	2050	Absolute Change	Percent Change	Percent of Region (2010)	Percent of Region (2050)
Milwaukee County	947,735	976,704	28,969	3.1	46.9	41.5
Waukesha County	389,891	481,369	91,478	23.5	19.3	20.4
Region	2,019,970	2,354,000	334,000	16.5	100.0	100.0

Source: SEWRPC. The Population of Southeastern Wisconsin Preliminary Draft. Technical Report No. 11 (5th Edition). 2013.

Between 2010 and 2050, Milwaukee County is expected to continue to decrease its share of the regional population, changing from 46.9 percent in 2010 to 41.5 percent in 2050, which is a decrease of 5.4 percentage points (SEWRPC 2013). This difference is much less compared with the previous 40-year period (1970 to 2010), when Milwaukee County's regional population share decreased by 13.1 percentage points. Waukesha County is expected to continue to increase its regional population share from 19.3 percent in 2010 to 20.4 percent in 2050. The percentage point change between 2010 and 2050, which is expected to be 1.1, is less than the 6.6 percentage point change that occurred during the previous 40-year period (1970 to 2010) for Waukesha County population.

Table 8 shows the population projections developed by W DOA for 2040 for Milwaukee County, Waukesha County and the region (WDOA 2013). The WDOA projects the region's population to increase by 12.7 percent between 2010 and 2040. Waukesha County's population growth (16.9 percent) is expected to increase at a faster pace than the region during this timeframe. Milwaukee County's rate of growth (7.2 percent) between 2010 and 2040 is expected to be slower than the region, but its absolute populations gains of 68,515 are slightly more than Waukesha County's projected population gains of 65,829.

Table 8: WDOA Population Projections – Milwaukee and Waukesha Counties –2040

Area	2010	2040	Absolute Change	Percent Change
Milwaukee County	947,735	1,016,250	68,515	7.2
Waukesha County	389,891	455,720	65,829	16.9
Region	2,019,970	2,277,340	257,370	12.7

Source: MCD and Municipal Population Projections, 2010-2040, Final Release, WDOA, Division of Intergovernmental Relations, Demographic Services Center

2.2.1.2 Employment

This section provides an overview of past and projected employment trends for the primary and secondary study areas.

Primary Study Area Employment

Past Employment

Table 9 shows the employment levels for the primary study area census tracts, comparing the 2000 census and 2006-2010 American Community Survey (ACS) reporting periods from the Census Transportation Planning Products (CTPP) files (AASHTO 2014). The data shows that while the City of Milwaukee portion of the primary study area contained the largest number of jobs (112,190) in 2006-2010, the most job growth occurred in the City of West Allis and Village of West Milwaukee portions of the primary study area. Employment levels in the primary study area portion of Wauwatosa remained nearly unchanged during this timeframe.

Table 9: Primary Study Area Employment – 2000 and 2010

Location	Primary Study Area			
	2000	2006-2010	Absolute Change	Percent Change
City of Milwaukee	121,089	112,190	-8,899	-7.3
City of West Allis	9,320	10,835	1,515	16.3
Village of West Milwaukee	4,460	5,765	1,305	29.3
City of Wauwatosa	8,875	8,895	20	0.2
Primary Study Area Total	**143,744**	**137,685**	**-6,059**	**-4.2**

Source: Census Transportation Planning Products (CTPP), American Association of State Highway and Transportation Officials (AASHTO).

Exhibit 5 shows the 2010 employment levels by census tract for the primary study area. The largest concentration of jobs in the primary study area is located in downtown Milwaukee. The next largest concentration of jobs is located in the Menomonee Valley. Other job concentrations are located in the Miller Valley and Harley-Davidson area; the West Allis Town Center; the Miller Park Way corridor in West Milwaukee; Walker's Point near downtown; and the area near Marquette University to the west of I-43. The State Street corridor in Wauwatosa shows a large concentration of jobs, but this is because the census tract captures a portion of the medical facilities associated with the Milwaukee Regional Medical Center.

Exhibit 5: Primary Study Area Employment - 2010

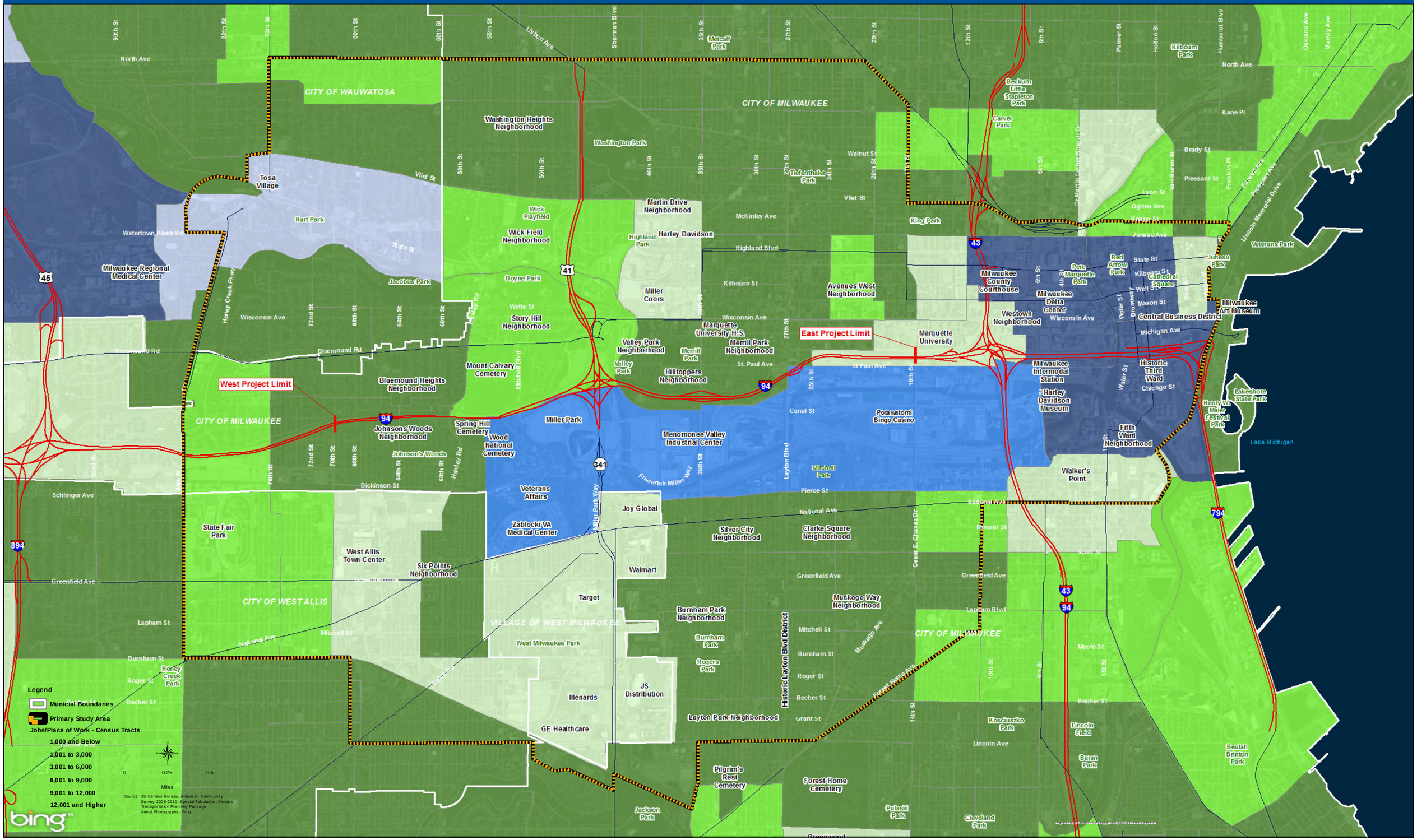
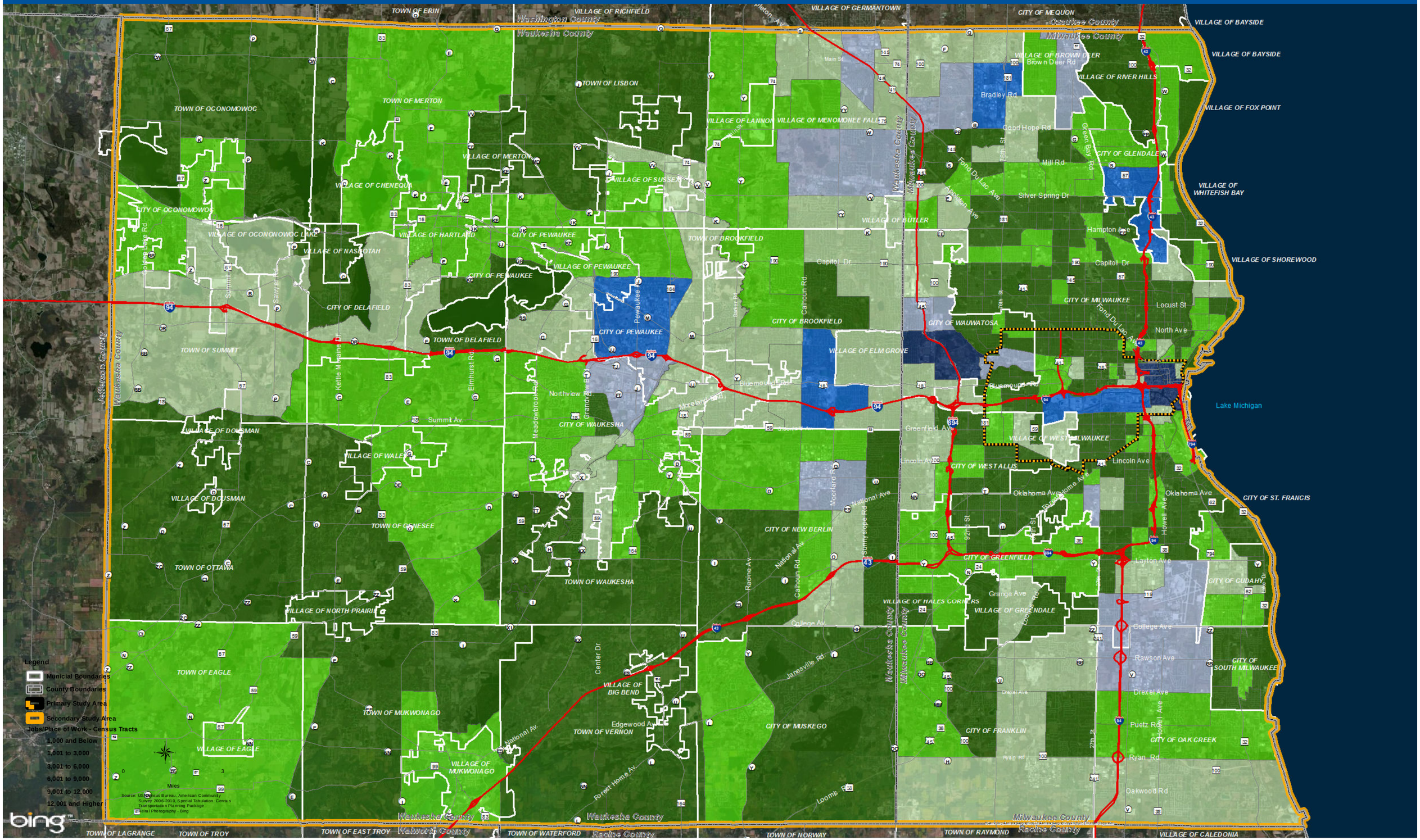


Exhibit 6: Secondary Study Area Employment - 2010



Projected Employment

SEWRPC does not provide employment projections at a census tract or municipal government level. See the next subsection for county-level employment projections.

Secondary Study Area Employment

Past Employment

The Southeastern Wisconsin region contained 1,176,600 jobs in 2010. Between 2000 and 2010, the region's employment levels declined 2.7 percent as a result of the national economic recession that occurred in the late 2000s. According to SEWRPC, before the 2000s, the region had experienced a substantial net increase in jobs each decade going back to at least the 1950s. The region gained 155,800 jobs during the 1990s; 108,100 during the 1980s; 161,000 during the 1970s; 111,900 during the 1960s; and 99,500 during the 1950s (SEWRPC 2013).

Milwaukee and Waukesha counties contain the largest numbers of jobs in the region. In 2010, Milwaukee County had over 575,000 jobs, and Waukesha County had nearly 269,000 jobs. The two counties combined contain 72 percent of the region's employment (SEWRPC 2013). Exhibit 6 shows the distribution of employment throughout Milwaukee and Waukesha counties. It shows the largest concentrations of jobs generally are located along the freeway corridors in the two counties. Downtown Milwaukee and the Milwaukee Regional Medical Center/Milwaukee County Research Park contain the largest concentration of jobs within the two counties. The next largest concentration of jobs is located in the Menomonee Valley, Glendale, Bradley Road/76th Street area, Brookfield Square shopping mall area and along Pewaukee Road in the City of Pewaukee. Other substantial job concentrations are located at General Mitchell International Airport; near Mayfair Mall; in Milwaukee's northwest side; in Menomonee Falls near Silver Spring Drive; at the New Berlin Industrial Park; and in the City of Waukesha south of I-94.

Table 10 shows the historic employment levels for Milwaukee and Waukesha counties. Within the region, Milwaukee County was the hardest hit by the economic recession of the late 2000s, and it lost 42,900 jobs during the 2000s. The rate of growth of Milwaukee County's employment levels before the 2000s could be characterized as slow but steady. Waukesha County's employment increased quite rapidly after 1960, when the county had only 32,600 jobs. During the 1960s, 1970s, 1980s and 1990s, the county's employment increased by 48,400, 51,500, 55,600 and 79,800 jobs, respectively. Between 2000 and 2010, Waukesha County's employment had only a slight net increase of 1,000 jobs as a result of the economic recession of the late 2000s.

Table 10: Past Employment for Milwaukee and Waukesha Counties – 1960 to 2010

	Milwaukee County				Waukesha County			
		Change from Previous Decade		Percent		Change from Previous Decade		Percent
Year	Number	Absolute Number	Percent Change	of Region Total	Number	Absolute Number	Percent Change	of Region Total
1960	503,300	49,800	11.0	74.8	32,600	16,200	98.8	4.8
1970	525,200	21,900	4.4	66.9	81,000	48,400	148.5	10.3
1980	581,700	56,500	10.8	61.5	132,500	51,500	63.6	14.0
1990	604,700	23,000	4.0	57.4	188,100	55,600	42.0	17.9
2000	618,300	13,600	2.2	51.1	267,900	79,800	42.4	22.1
2010	575,400	-42,900	-6.9	48.9	268,900	1,000	0.4	22.8

Source: SEWRPC. The Economy of Southeastern Wisconsin. Technical Report No. 10 (5th Edition). 2013.

According to SEWRPC, the largest historic shift of employment within the region has occurred between Milwaukee and Waukesha counties. Milwaukee County contained 74.8 percent of the region's total employment in 1960 and 48.9 percent in 2010. Waukesha County's percent of regional employment changed from 4.8 percent to 22.8 percent between 1960 and 2010.

Projected Employment

Table 11 shows the SEWRPC 2050 employment projections for Milwaukee County, Waukesha County and the region (SEWRPC 2013). The region's employment is expected to increase by 210,300, or 17.9 percent, between 2010 and 2050. This is a substantially slower rate of employment growth compared with the previous 40-year period (1970 to 2010), when the region increased employment by 50 percent. Between 2010 and 2050, Milwaukee County is expected to add 33,500 jobs (5.8 percent increase) and Waukesha County is expected to add 69,500 jobs (25.8 percent increase).

Table 11: Employment Projections – Milwaukee and Waukesha Counties – 2050

Location	2010	2050	Absolute Change	Percent Change	Percent of Region (2010)	Percent of Region (2050)
Milwaukee County	575,400	608,900	33,500	5.8	48.9	43.9
Waukesha County	268,900	338,400	69,500	25.8	22.8	24.4
SE Region	1,176,600	1,386,900	210,300	17.9	100.0	100.0

Source: SEWRPC. The Economy of Southeastern Wisconsin. Technical Report No. 10 (5th Edition). 2013.

According to SEWRPC, the historical decrease in Milwaukee County's share of regional employment and the increase in Waukesha County's share would be moderated over the 2010-to-2050 projection period (SEWRPC 2013). Milwaukee County's regional employment share is expected to change from 48.9 percent in 2010 to 43.9 percent in 2050. Waukesha County's regional employment share is expected to change from 22.8 percent in 2010 to 24.4 percent in 2050.

2.2.1.3 Racial Composition

This section describes the 2010 racial composition of the primary and secondary study areas.

Primary Study Area Racial Composition

Table 12 shows the racial composition for the primary study area census tracts (U.S. Census Bureau 2014).

Table 12: Primary Study Area – Racial Composition – 2010

Race	Location (Primary Study Area Portion Only)				
	City of Milwaukee	City of West Allis	Village of West Milwaukee	City of Wauwatosa	Total Primary Study Area
White	42,686	12,913	2,365	16,469	**74,433**
Hispanic	42,504	2,856	984	477	**46,821**
Black or African American	37,337	774	234	547	**38,892**
American Indian/Alaska Native	925	281	39	5	**1,250**
Asian	6,907	214	144	407	**7,672**
Native Hawaiian/Other Pacific Islander	105	0	0	0	**105**
Some other race	250	0	0	23	**273**
Two or more races	2,646	488	454	376	**3964**
Total Population	133,360	17,526	4,220	18,304	**173,410**
Total minority population*	90,674	4,613	1,855	1,835	**98,977**
Percent minority population*	68.0	26.3	44.0	10.0	**57.1**

Source: U.S. Census Bureau, 2010 Census of Population
** The minority population includes persons reported in the U.S. Census as being of Hispanic origin or reporting their race as Black or African American, American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, some other race, or more than one race.*

The primary study area contains a large minority population. In 2010, the minority population in the primary study area was 98,977, accounting for 57.1 percent of the total primary study area population. Within the primary study area, the City of Milwaukee portion had the largest minority population percentage at 68 percent. The Village of West Milwaukee contained the second largest minority population percentage at 44 percent. The West Allis and Wauwatosa portions of the primary study area had minority population percentages of 26.3 percent and 10 percent, respectively, in 2010.

Exhibit 7 shows the minority population percentage by a census tract for the primary study area in 2010. The map shows the highest minority population percentage is located in the City of Milwaukee to the north and south of I-94, and to the east of US 41. The north side of I-94 contains a large black/African American population, and the south side of I-94 contains a large Hispanic population.

Secondary Study Area Racial Composition

The racial composition of Milwaukee and Waukesha counties was reviewed for the secondary study area and is presented Table 13 (U.S. Census Bureau 2014). In 2010, Milwaukee County had a total minority population of 432,777 or 45.7 percent of the total population. Waukesha County had a minority population of 36,777, which was 9.4 percent of the total population. The largest minority groups in Milwaukee County are black/African American and Hispanic. In Waukesha County, the largest minority groups are Hispanic and Asian.

Table 13: Secondary Study Area – Racial Composition – 2010

	Milwaukee County		Waukesha County	
Race/Ethnicity	**Number**	**Percent**	**Number**	**Percent**
White	514,958	54.3	353,114	90.6
Hispanic	126,039	13.3	16,123	4.1
Black or African American	248,794	26.3	4,726	1.2
American Indian/Alaska Native	5,212	0.5	863	0.2
Asian	32,007	3.4	10,675	2.7
Native Hawaiian/Other Pacific Islander	296	0.0	117	0.0
Other	1,139	0.1	252	0.1
Two or More Races	19,290	2.0	4,021	1.0
Total Population	947,735	100.0	389,891	100.0
Total minority population*	432,777	45.7	36,777	9.4

Source: U.S. Census Bureau, 2010 Census of Population
** The minority population includes persons reported in the U.S. Census as being of Hispanic origin or reporting their race as Black or African American, American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, some other race, or more than one race.*

Exhibit 8 shows the minority population percentage by census tract for the secondary study area in 2010. The map shows a substantial concentration of minority populations in the City of Milwaukee's near-north, northwest and near south-side neighborhoods. In Waukesha County, the only substantial concentration of minority populations is in the City of Waukesha.

According to SEWRPC, regional population trends show an increasing minority population and a decreasing non-Hispanic white population as a percentage of the total regional population. The minority share of the total regional population increased from 13 percent in 1980 to 29 percent in 2010. Conversely, the non-Hispanic white population share decreased from 87 percent in 1980 to 71 percent in 2010 (SEWRPC 2013). If past trends continue, SEWRPC states the minority share of the total regional population would increase to almost 45 percent in 2050.

Exhibit 7: Primary Study Area - Minority Population Percentage - 2010

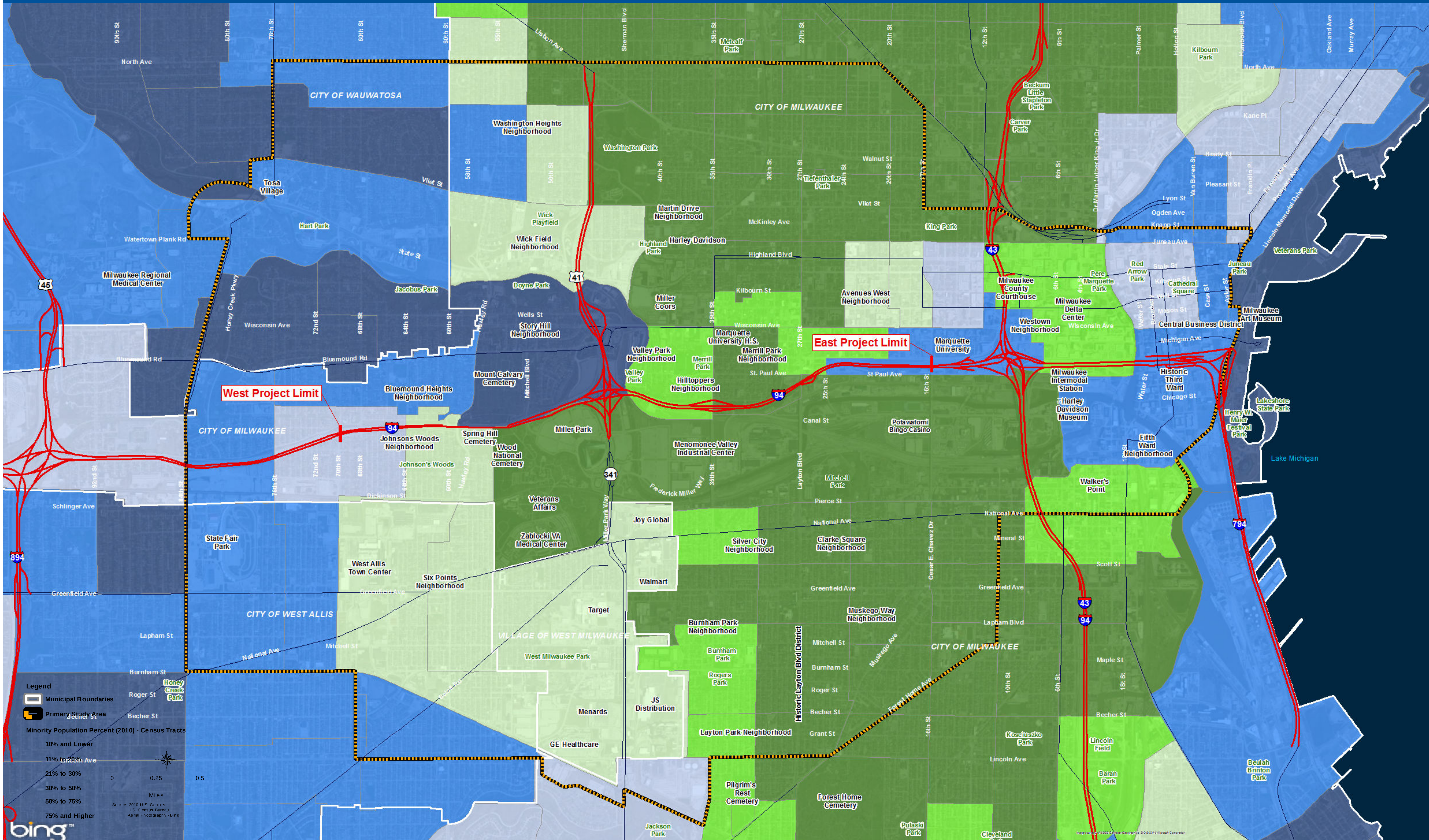
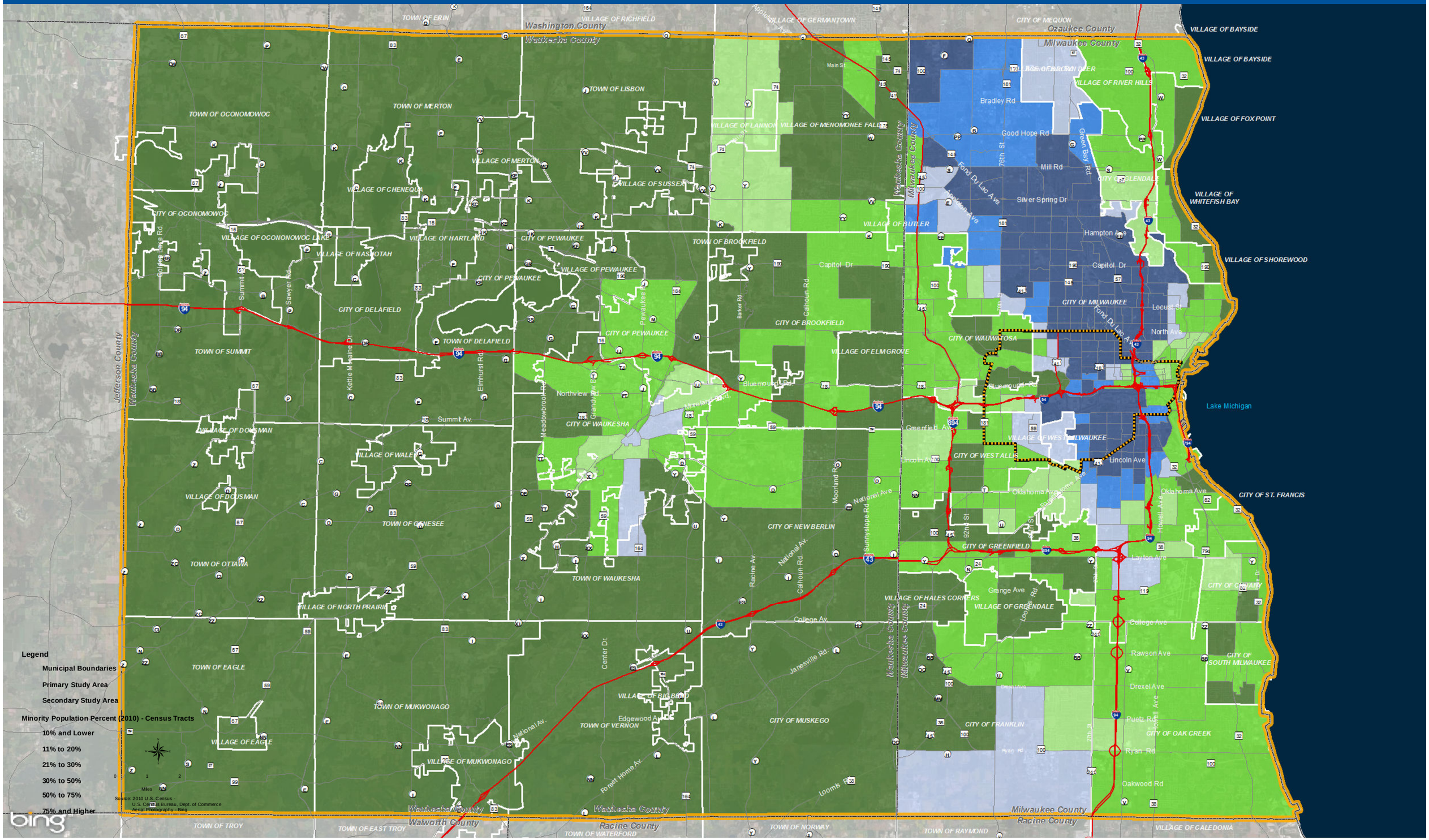


Exhibit 8: Secondary Study Area - Minorty Population Percentage - 2010



2.2.1.4 Persons in Poverty

This section discusses the poverty rates for the primary and secondary study areas.

Primary Study Area Poverty

Table 14 shows persons in poverty for the primary study area census tracts (U.S. Census Bureau 2014). In 2010, the primary study area had 48,121 persons in poverty, accounting for 30 percent of the total population. The City of Milwaukee portion of the primary study area had the highest percentage of persons in poverty at 34.4 percent. The City of West Allis and the Village of West Milwaukee had similar poverty rates of nearly half of the amount in the City of Milwaukee, while the City of Wauwatosa had the smallest poverty rate.

Table 14: Primary Study Area – Persons in Poverty – 2010

Location	Total Population	Persons in Poverty	Poverty Percentage
City of Milwaukee	126,622	43,513	34.4
City of West Allis	17,204	2,787	16.2
Village of West Milwaukee	4,220	704	16.7
City of Wauwatosa	18,015	1,117	6.2
Total primary study area	**166,061**	**48,121**	**30.0**

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates 2006-2010.

Exhibit 9 shows the percentage of persons in poverty by census tract for the primary study area in 2010. The map shows the highest rates of poverty are concentrated to the north of I-94, east of US 41 and west of I-43 in the City of Milwaukee. High rates of poverty are also found on the city's south side, especially to the east of 27th Street. The primary study area west of US 41/Miller Park Way has lower percentages of persons in poverty compared with the east side of the primary study area.

Secondary Study Area Poverty

The percentage of persons in poverty for Milwaukee and Waukesha counties was reviewed for the secondary study area and is shown in Table 15 (U.S. Census Bureau 2014). Milwaukee County had 176,196 persons in poverty in 2010, accounting for 19.2 percent of the population. Waukesha County had a substantially lower rate of poverty in 2010, accounting for 4.4 percent of the total population.

Table 15: Secondary Study Area – Persons in Poverty – 2010

Location	Total Population	Persons in Poverty	Poverty Percentage
Milwaukee County	915,325	176,196	19.2
Waukesha County	381,495	16,865	4.4

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates 2006-2010.

Exhibit 10 shows the percentage of persons in poverty by census tract for the secondary study area in 2010.The map shows the highest rates of poverty were concentrated within the City of Milwaukee, especially north of I-94 and east of US 41. Areas of the city's south side also had high rates of poverty to the south of I-94 and east of 27th Street. Some areas of the City of Waukesha also had higher rates of poverty compared with the surrounding communities, which had substantially lower percentages of persons in poverty.

Exhibit 9: Primary Study Area - Persons in Poverty Percentage - 2010

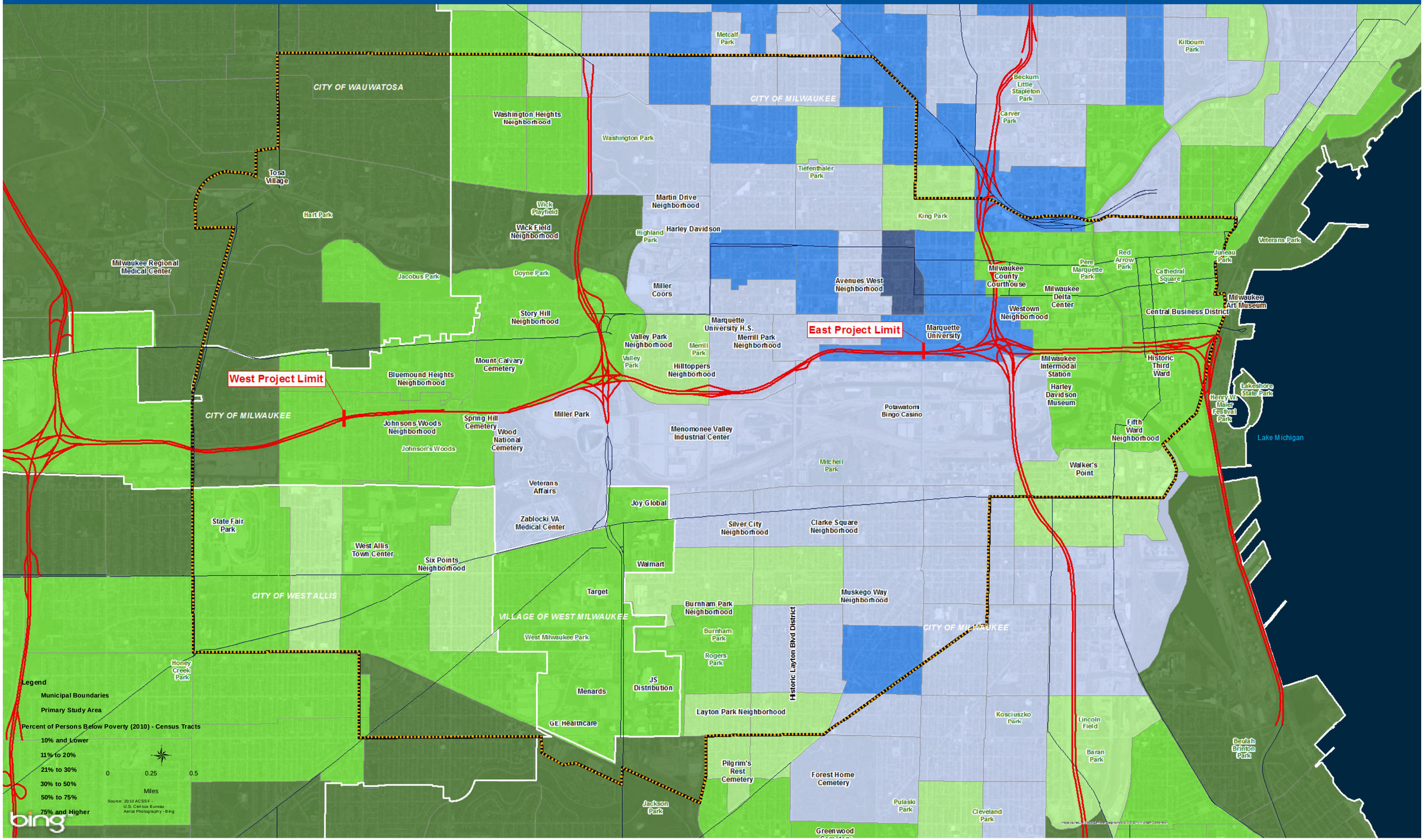
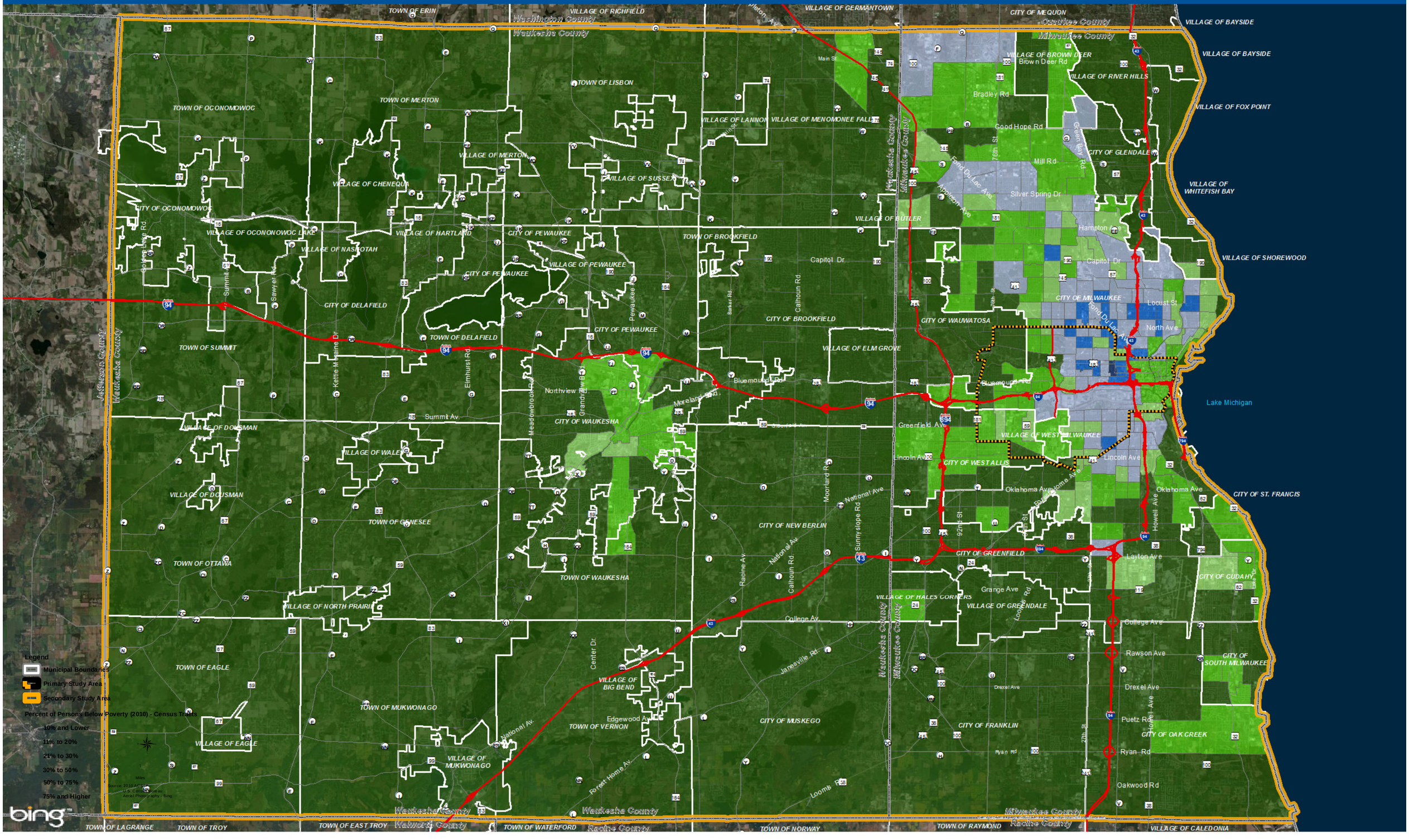


Exhibit 10: Secondary Study Area - Persons in Poverty Percentage - 2010



2.2.1.5 County-To-County Worker Flows

The study team reviewed county-to county worker flow data to understand communing patterns for workers within Milwaukee and Waukesha counties. This data is not available at the census tract or municipal levels; it is only available at the county level.

County-to-county worker flows for Milwaukee and Waukesha counties are shown in Table 16 (U.S. Census Bureau 2014). A large portion of Milwaukee County's workforce (80.8 percent) is employed within Milwaukee County. This is higher than the statewide percentage (72.1 percent) of workers who live and work in the same county. Waukesha County is the second largest place of employment for Milwaukee County workers, accounting for 13.1 percent of the Milwaukee County workforce. All of the other places of work combined represent about 6 percent of the Milwaukee County workforce.

In Waukesha County, 61.9 percent of the county's workforce is employed within Waukesha County. This is slightly less than the regionwide figure of 68.6 percent. Milwaukee County is the second largest place of work for Waukesha County residents, accounting for 30.6 percent of Waukesha County's workforce. All of the other places of work combined represent about 7 percent of the Waukesha County workforce.

Table 16: Place of Work for Milwaukee County and Waukesha County Labor Force

Place of Work	Milwaukee County Employed Residents		Waukesha County Employed Residents	
	Number	Percent	Number	Percent
Milwaukee County	350,824	80.8	61,602	30.6
Waukesha County	57,087	13.1	124,374	61.9
Ozaukee County	7,825	1.8	1,624	0.8
Washington County	4,378	1.0	3,501	1.7
Racine County	4,787	1.1	2,090	1.0
Kenosha County	1,760	0.4	554	0.3
Walworth County	748	0.2	1,245	0.6
All other counties in WI	3,369	0.8	3,949	2.0
Illinois	1,968	0.5	1,041	0.5
Other (international/out-of-state)	1,566	0.4	1,022	0.5
Total Workers	**434,312**	**100.0**	**201,002**	**100.0**

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates 2006-2010.

2.2.1.6 Means of Transportation to Work

This section discusses the means of transportation to work for people in the primary and secondary study areas.

Primary Study Area Means of Transportation to Work

Table 17 shows the means of transportation to work for the workers in the primary study area (U.S. Census Bureau 2014). The majority of workers (67.4 percent) commute by driving alone. Carpooling accounts for 13.5 percent of workers and 7.3 percent of workers use public transportation. Another 7.7 percent of workers walked to work.

Table 17: Primary Study Area - Means of Transportation to Work – 2010

Mode	Number	Percent
Drive Alone	51,105	67.4
Carpool	10,255	13.5
Public Transportation	5,573	7.3
Bicycle	483	0.6
Walked	5,857	7.7
Other	2,460	3.2
Total	**75,782**	**100**

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates 2006-2010.

Secondary Study Area Means of Transportation to Work

Table 18 summarizes the means of transportation to work for the secondary study area (U.S. Census Bureau 2014). Waukesha County has a higher percentage of people who drive alone to work (86.1 percent) compared with Milwaukee County (76.2 percent). This is because a higher percentage of Milwaukee County workers carpool (10.6 percent), take public transit (5.7 percent) or walk (3.5 percent) to work, compared with Waukesha County workers.

Table 18: Secondary Study Area - Means of Transportation to Work - 2010

	Milwaukee County		Waukesha County	
Mode	**Number**	**Percent**	**Number**	**Percent**
Drive Alone	330,905	76.2	173,000	86.1
Carpool	46,100	10.6	13,580	6.8
Public Transportation	24,800	5.7	1,585	0.8
Bicycle	2,685	0.6	385	0.2
Walked	15,400	3.5	2,980	1.5
Other	14,135	3.3	9,370	4.7
Total	**434,100**	**100**	**201,000**	**100**

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates 2006-2010.

2.2.1.7 Vehicles Available

Vehicles available by occupied housing units were reviewed for the primary and secondary study areas.

Primary Study Area Vehicles Available

Table 19 shows the vehicles available for occupied housing units within the primary study area (U.S. Census Bureau 2014). A substantial amount (19.6 percent) of the housing units in the primary study area has no vehicles available. Just over 42 percent of the housing units have one vehicle available, and 37.7 percent of housing units have two or more vehicles available.

Table 19: Primary Study Area – Vehicles Available - 2010

Number Vehicles	Number	Percent
None	12,810	19.6
One vehicle	27,825	42.6
Two or more vehicles	24,604	37.7

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates 2006-2010.

Secondary Study Area Vehicles Available

Table 20 shows the vehicles available for occupied housing units in the secondary study area (U.S. Census Bureau 2014). In Waukesha County, over 95 percent of housing units have at least one vehicle available, and 3.9 percent of housing units had no vehicle available. In Milwaukee County, over 86 percent of the housing units have at least one vehicle available, and 13.4 percent of housing units have no vehicle available.

Table 20: Secondary Study Area – Vehicles Available - 2010

	Milwaukee County		Waukesha County	
Number Vehicles	**Number**	**Percent**	**Number**	**Percent**
None	51,025	13.4	5,955	3.9
One vehicle	159,605	42.1	38,950	25.8
Two or more vehicles	168,745	44.5	106,255	70.3

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates 2006-2010.

2.2.2 Existing Land Use Patterns and Development Trends

This section describes the existing land use patterns and development trends for the primary and secondary study areas. The first subsection reviews the existing land use categories for the two study areas, and the following subsection discuss the development trends that the study team researched for the two study areas.

2.2.2.1 Existing Land Use

Primary Study Area Existing Land Use

Table 21 shows the existing land use acres for the primary study area (SEWRPC 2013). Residential uses (29.8 percent) make up the largest percentage of land use acres, followed by transportation uses (27.4 percent). Government/institutional uses (9.3 percent) and industrial uses (8.4 percent) make up the next largest land use categories, followed closely by commercial uses (8.9 percent). Open lands make up 6.4 percent of the land uses in the primary study area.

Table 21: Primary Study Area - Existing Land Use – 2010

	Primary Study Area	
Land Use Category	**Acres**	**Percent of Total**
Commercial	1,002	8.2
Residential	3,713	30.6
Industrial	1,002	8.2
Government and Institutional	1,134	9.3
Transportation	3,371	27.7
Communications and Utilities	129	1.1
Open Lands*	770	6.4
Recreational	868	7.1
Agricultural	1	0.0
Water	164	1.4
Total Acres	**12,154**	**100**

Source: SEWRPC 2010 Land Use Files
**Open lands includes woodlands, wetlands, unused urban and rural lands and landfills.*

Exhibit 11 shows a map of the existing land uses for the primary study area in 2010. It shows large compact residential areas surrounding the central business district in downtown Milwaukee and large pockets of industrial and government/institutional uses. Linear commercial corridors bisect the residential areas along the east-west and north-south arterials. Large blocks of recreational uses can be seen at the major regional entertainment facilities and county park system. Open lands mostly are associated with small strips of environmental corridors along the river systems as well as a few vacant parcels of land.

Exhibit 11: Primary Study Area - Existing Land Use

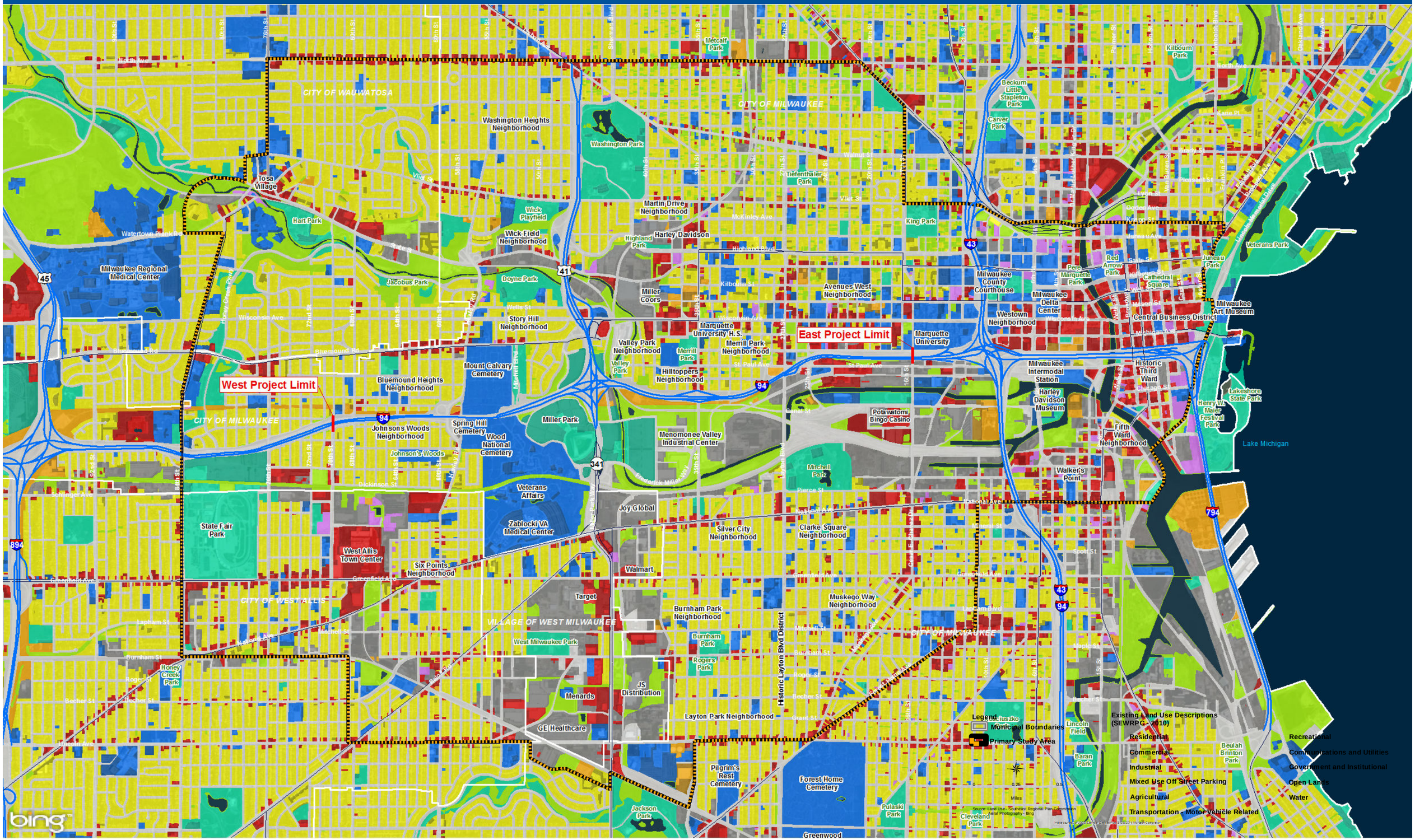
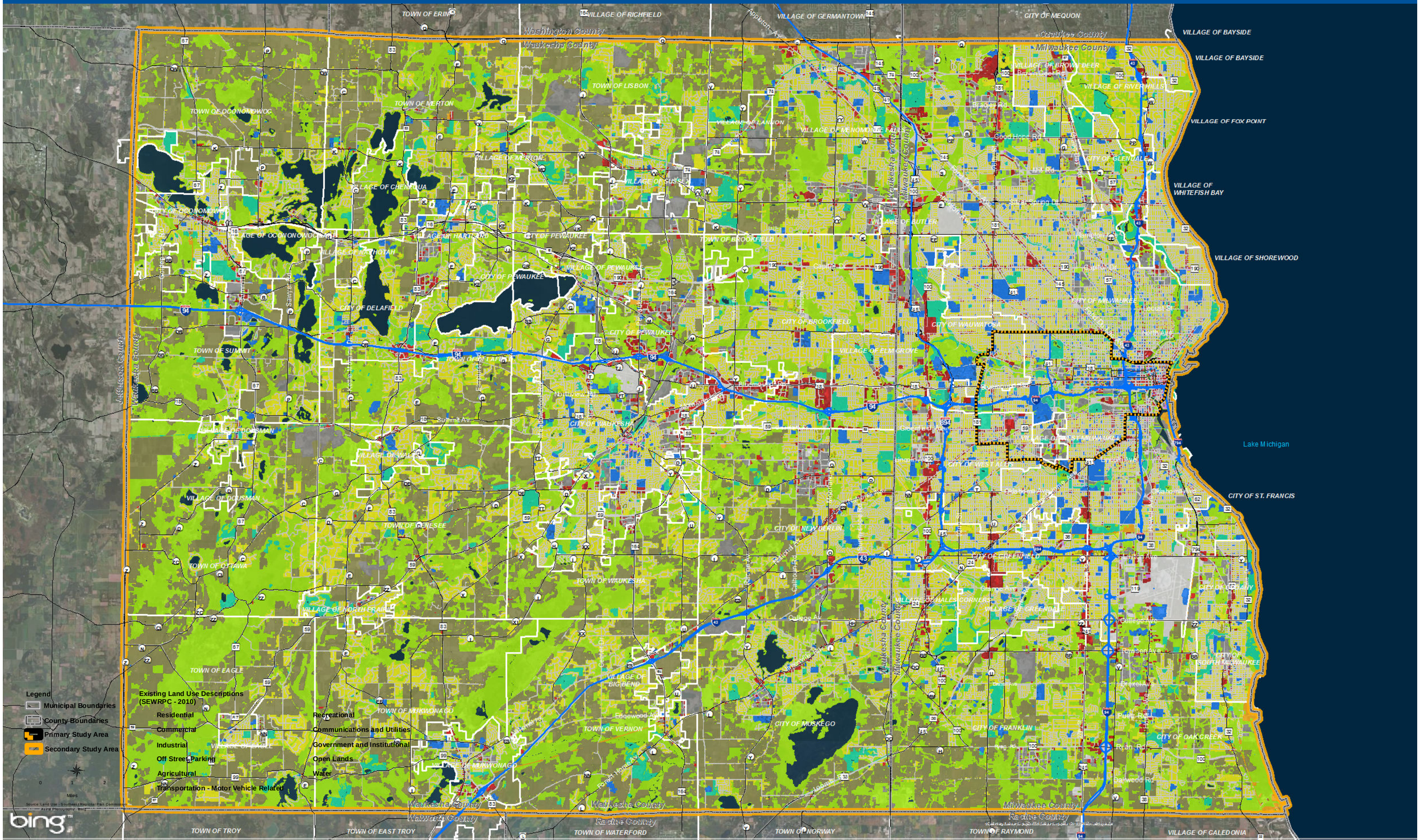


Exhibit 12: Secondary Study Area - Existing Land Use



Secondary Study Area Existing Land Use

Table 22 shows the existing land uses for the secondary study area (SEWRPC 2013). In Milwaukee County, residential, transportation and open lands are the three largest land use categories making up 32.7 percent, 20.8 percent and 16.8 percent of the total acres, respectively. In Waukesha County, the three largest land use categories are open lands, (29.8 percent), agricultural (25.8 percent) and residential (22.4 percent). Commercial land uses make up 5.2 percent of Milwaukee County and 1.8 percent of Waukesha County. Industrial land uses in Milwaukee and Waukesha counties make up 4.9 percent and 2.6 percent, respectively.

Table 22: Secondary Study Area – Existing Land Use – 2010

	Milwaukee County		Waukesha County	
Land Use Category	**Acres**	**Percent of Total**	**Acres**	**Percent of Total**
Commercial	8,075	5.2	6,540	1.8
Residential	50,851	32.7	83,403	22.4
Industrial	7,582	4.9	9,755	2.6
Government and Institutional	8,548	5.5	5,638	1.5
Transportation	32,255	20.8	31,325	8.4
Communications and Utilities	1,476	1.0	850	0.2
Open Lands	26,026	16.8	110,841	29.8
Recreational	7,871	5.1	9,399	2.5
Agricultural	11,129	7.2	95,710	25.8
Water	1,531	1.0	18,076	4.9
Total Acres	**155,343**	**100**	**371,538**	**100**

Source: SEWRPC 2010 Land Use File

Exhibit 12 shows a map of the existing land uses for the secondary study area. The map shows the more urbanized and compact areas of Milwaukee County and the eastern side of Waukesha County (New Berlin, Elm Grove, Brookfield, Menomonee Falls, Waukesha) transition to areas of development surrounded by areas of open space and agricultural land use.

2.2.2.2 Development Trends

This section describes the land use and development trends for the primary and secondary study areas. The information is based on site visits, a review of local land use plans and stakeholder input that was described in Section 2.1.2.The following exhibits are also used to help convey information about the study areas: Exhibit 13, Primary Study Area Development Trends; Exhibit 14, Secondary Study Area Sewer and Water Services; andExhibit 15, Secondary Study Area Economic Activity Centers.

Primary Study Area Development Trends

This section first generally describes primary study area land use and development trends, and then it describes development trends in more detail for the various communities within the primary study area. The development trends described in this section are summarized on Exhibit 13.

The primary study area is located within fully developed urban communities in Wauwatosa, West Allis, West Milwaukee and the City of Milwaukee. Land uses in the primary study area contain relatively compact/high-density residential neighborhoods with predominately single-family and two-family homes, and pockets of multifamily uses. Neighborhoods range from stable, middle-class residential areas on the west side of the study area to more fragile residential neighborhoods to the east side of the Stadium Interchange, where higher rates of poverty are present. Several neighborhood revitalization efforts are ongoing and have helped to improve the conditions within in the Avenues West, Layton Boulevard West, Clark Square and Muskego Way neighborhoods.

Exhibit 13: Primary Study Area — Development Trends

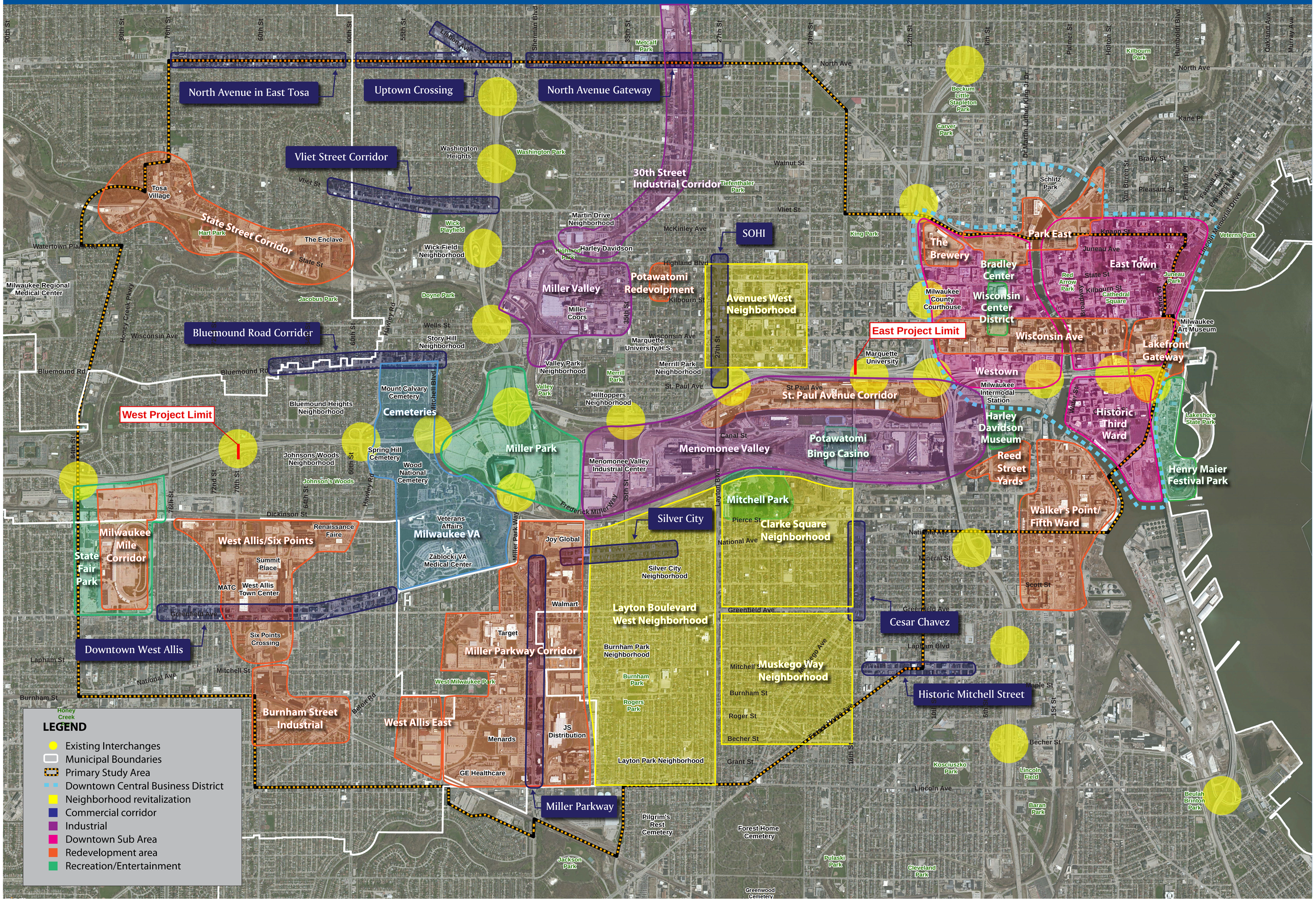


Exhibit 14: Secondary Study Area - Sewer and Water Services

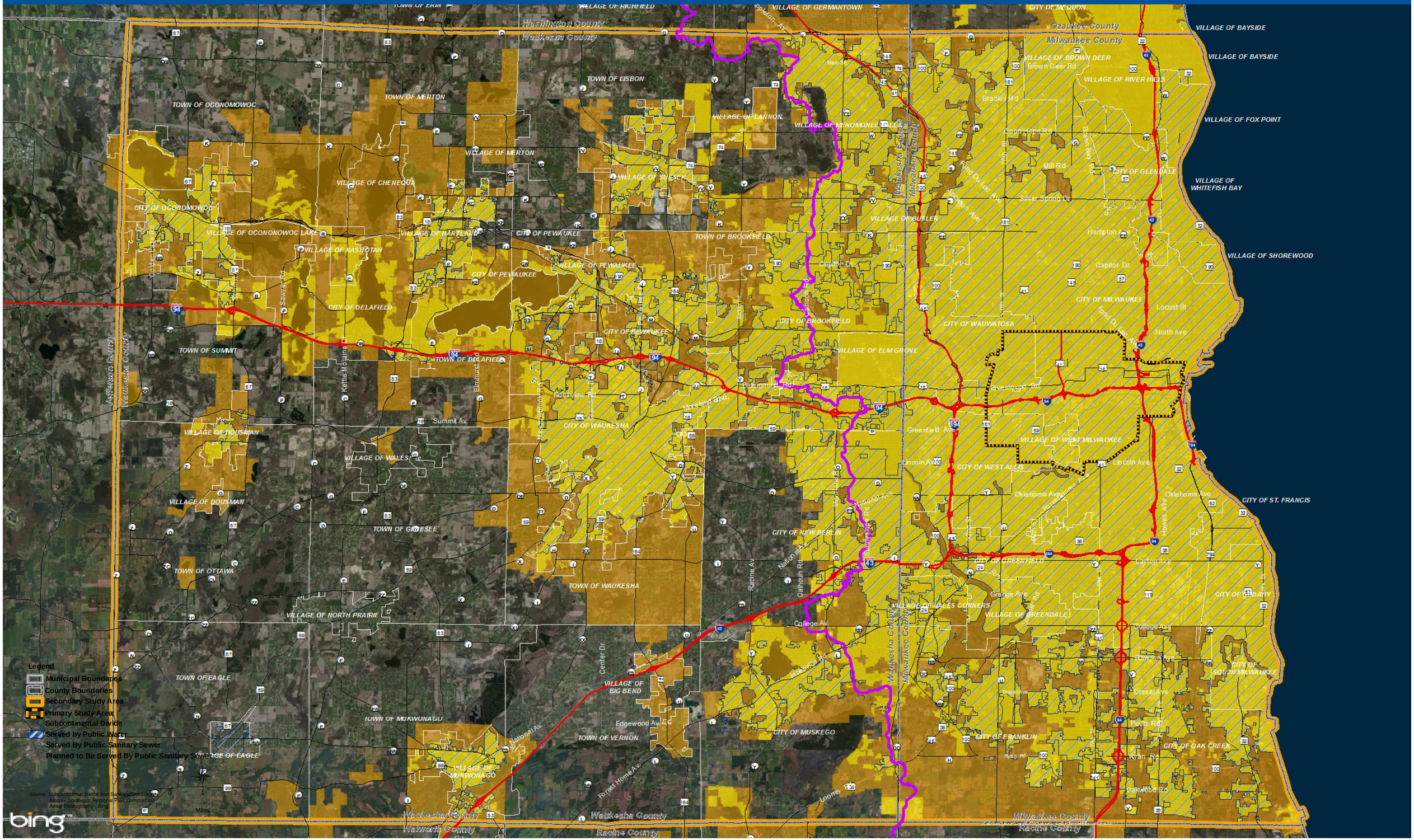
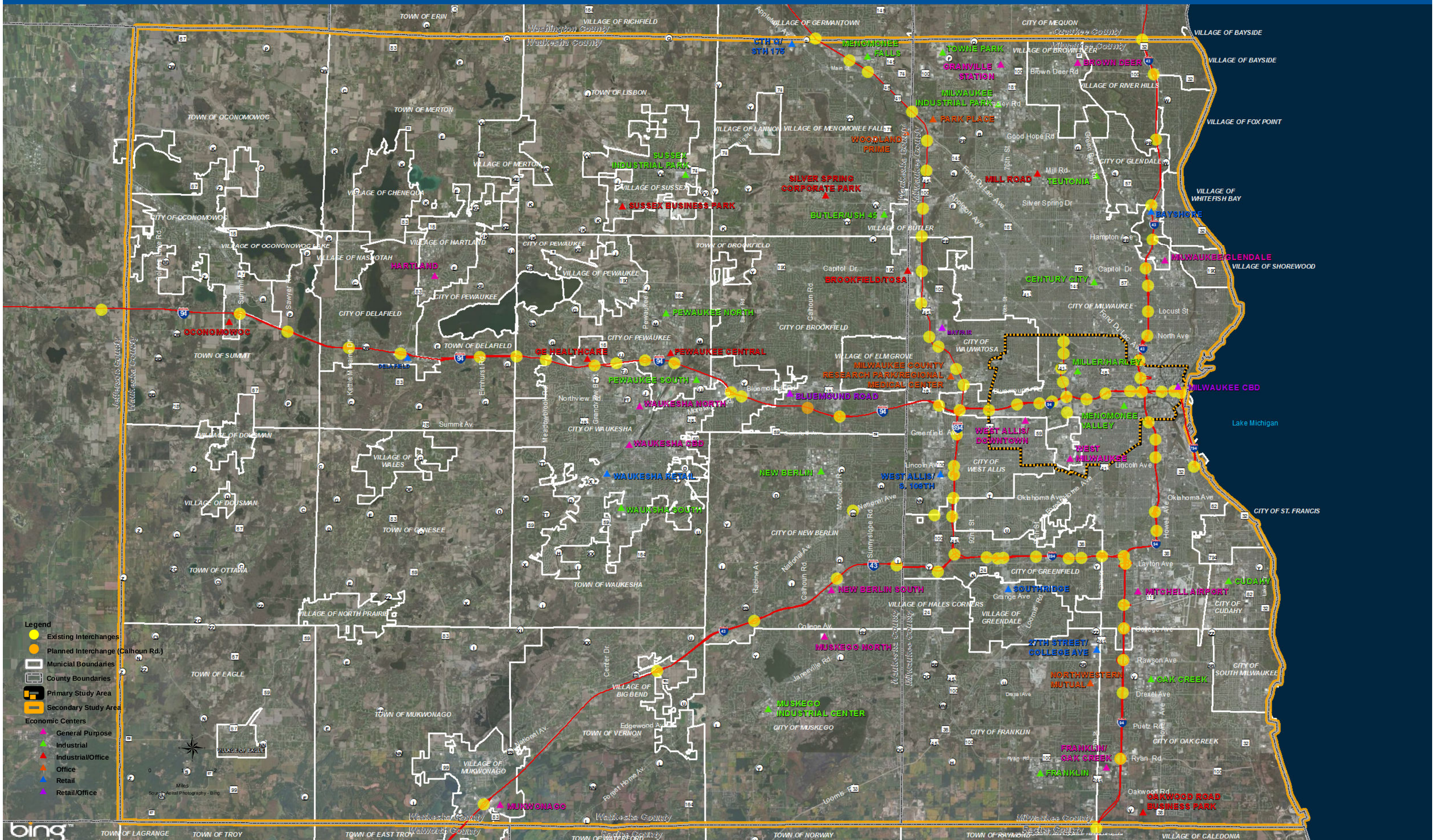


Exhibit 15: Secondary Study Area - Economic Activity Centers



The primary study area contains many existing urban commercial corridors, including Cesar Chavez Drive, the South of Highland (SOHI) district along 27th Street; Silver City along National Avenue; Greenfield Avenue/National Avenue in West Allis; and Bluemound Road, Vliet Street and North Avenue. The commercial corridors contain many small, main-street-like businesses such as eating and drinking establishments, and personal care and professional services. The Miller Park Way corridor is one of the few areas within the primary study area that contains large national chain retail stores.

The primary study area has large institutional uses associated with the Milwaukee Veterans' Affairs (VA) regional office, the Clement J. Zablocki VA Medical Center and cemeteries. It also has many recreational and entertainment destinations such as Potawatomi Bingo Casino, Hank Aaron State Trail, Harley-Davidson Museum, Mitchell Park Horticultural Conservatory and Miller Park. These amenities draw millions of visitors annually. According to local stakeholder input, the influx of visitors and the increasing availability of recreational amenities have helped to revitalize adjacent neighborhoods. In addition, the primary study area has many downtown entertainment events that draw 4.3 million visitors annually to the BMO Harris Bradley Center, Henry Maier Festival Park and the Wisconsin Center District (Progressive Urban Management Associates 2012).

The primary study area contains several existing redevelopment areas, including the State Street corridor in Wauwatosa; the downtown/Six Points area in West Allis; the Miller Park Way corridor in West Milwaukee; and several redevelopment districts in and around downtown such as The Brewery, Park East and the Walker's Point/Fifth Ward area. The redevelopment areas have created new housing options and employment opportunities within the primary study area. Also, several areas within the primary study area have been identified for future redevelopment such as the St. Paul Avenue corridor, the Milwaukee Mile, Wisconsin Avenue and Reed Street Yards.

Downtown Milwaukee is included in the primary study area. Downtown is the central business district of the Milwaukee metropolitan area and sustains over 81,000 jobs (Progressive Urban Management Associates 2012). Downtown has many unique districts and can be divided into three main subareas: East Town, Westown and the Third Ward. Spillover development from the Third Ward has pushed into the Walker's Point/Fifth Ward area.

City of Wauwatosa

According to stakeholder interviews with city staff and local real estate professionals, Wauwatosa is a desirable inner ring Milwaukee County suburb that is attracting young professionals and young families due to its central regional location, good transportation access, compact and walkable neighborhoods, and the availability of regionally significant employment centers associated with the Milwaukee County Research Park and the Milwaukee Regional Medical Center.

The eastern side of the City of Wauwatosa is located within the primary study area on the west side of the project corridor and north of I-94. This portion of Wauwatosa was largely developed during the first half of the 1900s and includes the historic downtown Wauwatosa area known as the Tosa Village. The primary study area portion of Wauwatosa is served by the I-94 interchanges at 68th/70th Street and the Hawley Road, and by US 41.

The City of Wauwatosa has been actively pursuing redevelopment of former industrial parcels to maintain and increase its tax base. These pro-redevelopment policies are likely to continue as Wauwatosa is in the process of updating its economic development policies to encourage additional planned redevelopment that will continue to support its tax base into the future. (See stakeholder interview with Robert Simi in Appendix C.)

The State Street corridor is a redevelopment district within the Wauwatosa portion of the primary study area. The city adopted the *Village of Wauwatosa Strategic Development Plan* in 2011 to guide the redevelopment of this area (City of Wauwatosa 2011). The plan recommends several public-realm projects to improve the functionality and connectivity of the area. Also, it recommends several redevelopment sites that convert public lands or former industrial areas to new high-density residential and commercial uses.

The west end of the State Street corridor is anchored by the Tosa Village, which contains a mixture of local shops and restaurants. The city anticipates continued revitalization and smaller-scale infill development within the Tosa

Village area. The city is currently exploring in the Tosa Village area options for residential/commercial mixed-use development for the site known locally as the remnant fire station parcel. To the east of the Tosa Village, along State Street between approximately 72nd and 74th streets, the city anticipates continued rehabilitation and existing property investment. The west side of the State Street corridor is planned for substantial residential development. The area between approximately 68th and 60th streets on the north side of State Street has already seen new residential investment with The Enclave 150-unit apartment building and The Reserve at Wauwatosa Village 230-unit apartment complex. Additional apartment buildings are being planned in this area including 40-unit The Annex @ Enclave apartment building. The city anticipates future residential development on the south side of State Street in this area when lands are taken out of the Menomonee River floodplain as a result of upstream improvements by the Milwaukee Metropolitan Sewerage District (MMSD).

The North Avenue corridor in East Tosa is a commercial corridor within the Wauwatosa portion of the primary study area that extends about 16 blocks between 76th Street and 60th Street. The *City of Wauwatosa Comprehensive Plan* calls this corridor "Tosa's Main Street" and says it is one of the most important neighborhood-oriented commercial corridors in the community (City of Wauwatosa 2008). It contains many neighborhood-serving commercial businesses such as restaurants, bakeries, coffee shops, health care services, professional services and other retail goods and services. The City of Wauwatosa adopted in 2011 the *Wauwatosa East Town North Avenue Plan*, which includes recommendations for how to improve way-finding, pedestrian safety, traffic flow, economic development and aesthetics (City of Wauwatosa 2011). The city anticipates continued investment in small-scale neighborhood-oriented businesses within this corridor, redevelopment of key sites, and ongoing rehabilitation of existing buildings.

City of West Allis

After a major loss of manufacturing employment, the City of West Allis since the early 1990s has aggressively pursued redevelopment of its former industrial areas. The city has created 13 tax increment districts (TIDs) to promote the reuse of land, create jobs and add new tax revenues. According to stakeholder interviews, the community's central regional location, convenient access to the freeway system, close proximity to a large pool of workers, and affordable neighborhoods has helped West Allis attract new investment and residents. The I-94 interchanges at 68th/70th Street and the Hawley Road serve developments within the West Allis portion of the primary study area. Stakeholder input has stressed that these interchanges have been key to West Allis' redevelopment efforts. (See interviews with City of West Allis and Van Buren Management in Appendices A and C.)

TIDs within the primary study area have spurred private development on the east side of the community to the north and south of Greenfield Avenue where the former Allis-Chalmers Company once existed. This area contains a mixture of uses and includes downtown West Allis and the Six Points neighborhood. Examples of develop in this area include the following:

- The West Allis Towne Center at the northeast quadrant of Greenfield Avenue and 70th Street.
- Office buildings and higher educational facilities including a Milwaukee Area Technical College (MATC) campus along 70th Street to the north of Greenfield Avenue.
- Several multifamily residential and commercial developments in the area known as the Six Points Crossings to the south of Greenfield Avenue. Examples include the Six Points Apartments and Six Points East Condominiums. An additional 250 apartment units are planned.
- The Summit Place Office complex located immediately north of the West Allis Towne Center along Washington Street. It is the city's largest taxpayer and contains 650,000 square feet of office and over 4,000 jobs (City of West Allis 2012).
- The Renaissance Faire office building (801 S. 60th St.), which was a former Sam's Club. The building was recently renovated and could add up to 200,000 square feet of new space for a total 400,000 square feet. Tenants include Wheaton Franciscan, CBS-affiliate WDJT-TV (Channel 58) and US Bank.

To the south of the Six Points area, the City of West Allis has been working to redevelop the area north and south of Burnham Street between approximately 64th Street and 68th Street (Burnham Street Industrial). The city's focus in this area is to revitalize industrial development. An example of the city's redevelopment efforts includes the creation of a tax increment financing (TIF) district for almost 12-acre contaminated former industrial parcel surrounded by the Union Pacific Railroad, West Becher Place and 67th Place. The city remedied the site's environmental contamination and has prepared it for development. The city's comprehensive plan outlines other future industrial redevelopment projects in this area.

On the very east side of the City of West Allis, south of Burnham Street between approximately 52nd and 56th streets , the city has focused on revitalizing industrial land uses with TIF (West Allis East Industrial on map). Examples include the former approximately 13-acre Wehr Steel site (2154 S. 54th St.), where a new distribution center and office building were constructed. More recently the City of West Allis created a TID at the former Teledyne site located at the southeast corner of Burnham Street and 53rd Street. The city is in the process of preparing the site for development.

The City of West Allis' comprehensive plan envisions a long-range plan to redevelop the Milwaukee Mile (a mile-long oval race track located on the grounds of the Wisconsin State Fair Park) into a large, mixed-use commercial district should the race track discontinue its operations in the future (City of West Allis 2011). The Milwaukee Mile site is located near the I-94 interchange at 84th Street and contains 127.5 acres. About 85 of those acres are within West Allis' borders. The city's comprehensive plan says the potential future development site could generate over $1.2 billion of development and could accommodate 8 million square feet of building space (City of West Allis 2011). The plan recommends re-establishing Honey Creek, which is currently underground, to provide a central amenity for the development site. Development would be expected to occur over a 20- to 30-year timeframe.

The Greenfield Avenue commercial corridor in downtown West Allis is the community's main street district and is designated as a Wisconsin Main Street district that is led by the Downtown West Allis BID. Downtown West Allis is one of the target areas for the city's Commercial Façade Improvement Program, which provides financial incentives for commercial properties for exterior renovations that improve the aesthetics in the district. The city and the BID utilize the Wisconsin Main Street designation and the façade improvement program to help improve the corridor and attract new businesses.

Village of West Milwaukee

The Village of West Milwaukee is a small inner-ring suburb of Milwaukee that has a land area of 1.13 square miles. The entire community lies within the primary study area. The community's primary access to I-94 is Miller Park Way via the Stadium Interchange/US 41. The I-94 interchanges at Hawley Road and 35th Street also serve the village.

The village has a long history of industrial development. At its peak, industrial land uses accounted for 80 percent of the village's total land area. Today, industrial land uses are still the dominant land use type in the village, accounting for 42 percent of the total land area (Milwaukee 2009).

Since the mid-1980s the village has been aggressively pursuing redevelopment of former industrial areas and vacant lands along the Miller Park Way corridor. The village prepared its first redevelopment plan in 1988 to address blighted properties and identify redevelopment projects. The plan was updated several times during the 1990s and 2000s to address ongoing redevelopment needs. TIF has been used to acquire properties, clear obsolete structures and provide public improvements.

As a result of the village's redevelopment policies, the Miller Park Way corridor has transitioned into a significant regional-scale shopping center with national chain stores. Menards, Target and most recently Wal-Mart have constructed stores in this corridor. Other small- and medium-sized retailers include Pick n' Save and Cermak grocery stores, Speedway gas station, Snap Fitness, Great Clips, Office Max, banking institutions, restaurants, medical services and others. According to village officials, the market for additional retail uses remains strong, but most of the available retail sites along Miller Park Way have been developed.

Industrial uses continue to have a strong presence along the corridor and include Joy Global, Rexnord, JS Distribution, GE Healthcare and Froedtert Malt Corp. The village officials recognize that future redevelopment sites could open up along the corridor if any existing industrial facilities suspend operation due to changing market conditions.

The village also developed several apartment buildings along the Miller Park Way corridor, which increased the village's population in the 1990s. According to village officials, it receives calls from developers interested in building residential uses, but the village does not have any residential sites available at this time.

According to community officials, the village's redevelopment success has caused traffic congestion along Miller Park Way, which affects the community's quality of life. About 60,000 cars travel per day on the north end of Miller Park Way near National Avenue; traffic tapers off along the southern portion of the corridor near Lincoln Avenue. The village believes that improving traffic flow along Miller Park Way is necessary to serve existing and future development, and it is considering expanding the corridor's capacity.

City of Milwaukee

The discussion for the primary study area portion of the City of Milwaukee is broken up into the following four subareas: West of US 41; northeast of I-94/US 41; southeast of I-94/US 41; and downtown.

West of US 41 (north and south of I-94). The City of Milwaukee's *Near West Side Area Comprehensive Plan* includes this portion of the primary study area to the west of US 41 (City of Milwaukee 2004). This area is dominated by residential neighborhoods including the Johnson's Woods neighborhood bordering the south side of I-94; the Bluemound Heights neighborhood bordering the north side of I-94; and the Story Hill neighborhood bordering the northwest side of the Stadium Interchange and US 41. The Wick Field and Washington Heights neighborhoods are located immediately north of Story Hill between US 41 and the City of Wauwatosa's eastern boundary. These neighborhoods provide a source of stable, middle-class neighborhoods for the City of Milwaukee that have relatively high rates of home ownership.

Vliet Street is a commercial corridor within this portion of the primary study area. It extends east from the Wauwatosa border to about 43rd Street. It contains a cluster of small-scale neighborhood serving retail uses and has some long-term anchors like the Times Cinema. According to the Milwaukee *West Side Area Plan*, the Vliet Street corridor "is a successful commercial district with broad and local appeal." (City of Milwaukee 2009) Development trends indicate this commercial district is improving and has seen some new investment as new shops fill vacant spaces.

The Uptown Crossing commercial corridor is located along North Avenue between approximately 60th Street and Sherman Boulevard and along Lisbon Avenue from 46th to 51st streets. The corridor contains a mixture of small-scale restaurants, shops, offices and institutional uses. The Milwaukee Police District 3 and Communications Center is an anchor for the corridor. A business improvement district (BID) was established in 1995 to improve the streetscape and encourage more business development.

Miller Park is a large recreational/entertainment facility within this portion of the primary study area that encompasses about 227 acres. Miller Park contains the 43,000-seat home stadium of the Milwaukee Brewers in the southwest quadrant of the Stadium Interchange. Its parking lots are located in all four quadrants of the Stadium Interchange. In the past, the owners of the Milwaukee Brewers have talked about creating complimentary development opportunities within the parking lot areas. However, no known plans have moved forward.

The area to the west of Miller Park contains large institutional uses associated with the Milwaukee VA and its 6,000 employees. The area contains the Clement J. Zablocki VA Medical Center (5000 W. National Ave.), the second largest VA medical center in the United States. The medical center campus is located on 125 acres and is part of the VA Integrated Services Network 12, which includes facilities in Tomah and Madison; Iron Mountain, Michigan; and North Chicago, Hines and Chicago. It has 168 acute care beds, over 500,000 annual outpatient visits, 113 bed nursing home, and 356 domiciliary beds. The campus contains a VA regional office, the benefits

center, a medical research center and the Wood National Cemetery (located on both sides of I-94). The VA campus was originally established in the 1860s as a "soldiers' home," and it is currently designated as a National Historic Landmark (see EIS Section 3.25, Historical Sites, for more information about historic landmarks). The Milwaukee VA organization is constructing a 16-unit home for residence by families of wounded veterans during their recovery at the medical center. No other development plans are known.

A cluster of cemeteries are located north of the Milwaukee VA on both sides of I-94. To the south of I-94, the cemeteries include the Wood National Cemetery mentioned above and the Spring Hill Cemetery. The Beth Hamedrosh Hagodel Cemetery and a portion of the Wood National Cemetery are located immediately north of I-94, and the Calvary Cemetery is located immediately north of the Wood National and Beth Hamedrosh Hagodel cemeteries.

Northeast of I-94/US 41. This portion of the primary study area is located north of I-94, south of North Avenue, east of US 41 and west of I-43. The area is served by the I-94 interchanges at 35th Street and 25th/26th/ 28th streets. The dense residential Valley Park, Hilltoppers, Merrill Park and Avenues West neighborhoods are located adjacent to the I-94 corridor in this area. These neighborhoods are some of the city's most fragile due to high rates of poverty and continued population declines. The area contains a high percentage of minorities, particularly black/African American residents (see Sections 2.2.1.3 and 0, which include race and poverty statistics, respectively, within the primary study area).

The City of Milwaukee's *Near West Side Area Plan* covers a number of planning districts that are located in this area. The plan identifies catalytic projects that are intended to improve the quality of existing commercial and residential areas in the Near West Side planning area (City of Milwaukee 2004). The revitalization of the 27th Street corridor is identified as a catalytic project in the plan. The corridor was once a main neighborhood shopping district, but fell into decline after the 1950s. The *Near West Side Area Plan* says the economic revitalization of the 27th Street corridor is of strategic importance to the Near West Side renaissance (City of Milwaukee 2004). The plan seeks to revitalize the street into a central node of activity for the Near West Side community.

The City of Milwaukee prepared a redevelopment plan for the Avenues West (City of Milwaukee 2008)neighborhood in September 2008 as a result of the recommendations in the *Near West Area Plan*. The redevelopment plan presents investment strategies for commercial and housing uses throughout the Avenues West neighborhood. A central component of the plan is the creation of a South of Highland (SoHi) Main Street District along 27th Street.

Large industrial areas, associated with the Miller Valley and the southern tail of the 30th Street Industrial corridor, are located within this portion of the primary study area. The Miller Valley is the original site purchased by Frederick Miller in 1855 for the Miller Brewing Company. Today, the site is still home to the Milwaukee Brewery for the MillerCoors Company. Almost 720 employees work in the Miller Valley (MillerCoors 2014).

The City of Milwaukee is working to redevelop the 30th Street Industrial Corridor into a modern employment center and economic hub, similar to efforts that have been taken for the Menomonee Valley. The 30th Street Industrial Corridor extends south from Hampton Avenue to Highland Boulevard and is centered along a railroad corridor between 35th and 27th streets. The very southern end of the 30th Street Industrial Corridor is located with this portion of the primary study area and is anchored by a Harley-Davidson manufacturing site. According to local stakeholder input, the US 41 corridor provides an important access point to the regional freeway system for the business in the 30th Street Industrial Corridor for shipping and access to employees.

Most of the city's redevelopment efforts for the 30th Street Industrial Corridor are taking place on the northern end outside the primary study area where larger parcel sizes are available. The city has taken many steps to prepare a large tract of land for industrial development at Century City, which is the core component of the corridor's revitalization. Century City is located between Capitol Drive and Burleigh Street. Beginning in2013, the city began seeking prospective developers interested in building on parcels that are up to 20 acres in size at Century City.

The Forest County Potawatomi Community purchased the former Concordia Campus in Milwaukee's Concordia neighborhood in 1990. Currently, the tribe is in the process of redeveloping the 11-acre former campus into offices, business incubators, educational facilities and other uses. The tribe uses a portion of the campus for its tribal related functions. It recently opened Southeastern Wisconsin's first carrier neutral data center, Data Holdings, LLC, which was a $33 million investment.

Southeast of I-94/US 41. This portion of the primary study area is generally located east of the Milwaukee/West Milwaukee border, south of I-94, north of Lincoln Avenue and west of the downtown central business district. This area includes the Menomonee Valley industrial area, several residential neighborhoods (Layton Boulevard West, Clarke Square and Muskego Way), the Silver City and Cesar Chavez commercial corridors, and the Reed Street Yards and Walker's Point/Fifth Ward redevelopment areas. The area is served by the 35th Street and 25th/26th/28th Street interchanges.

Beginning in the 1990s the City of Milwaukee and the Menomonee Valley Partners set forth a vision for the revitalization of this former industrial corridor. In 1998, a land use plan for the Valley was prepared to initiate the redevelopment process. The plan recommended revitalizing the Menomonee Valley as an urban industrial and mixed-use district with an emphasis on industrial uses in the west and central portions and a mixture of uses on the east side (City of Milwaukee 1998). The plan identified several priority development areas including the redevelopment of the former railroad shops site on the west end that is now the Menomonee Valley Industrial Center.

The redevelopment efforts over the past 10 years have resulted in 33 companies that moving to or expanding in the Valley and the creation of 4,700 jobs (Menomonee Valley Partners, Inc. 2014). According to local stakeholder interviews, the Menomonee Valley businesses employ many residents who live in adjacent neighborhoods and benefit from the ability to walk or take transit to work. Also, the recreational and entertainment amenities located within the Menomonee Valley draw 10 million visitors to the area annually and have helped to revitalize the adjacent neighborhoods. Local recreation and entertainment uses include the Hank Aaron State Trail, the Harley-Davidson Museum, Miller Park, Potawatomi Bingo Casino, Marquette Valley Fields, Mitchell Park Horticultural Conservatory, and various other venues, events and tours that take place throughout the year. Most recently, the Menomonee Valley celebrated the opening of Three Bridges Park, a 24-acre park located next to the Menomonee River between the 35th Street and 27th Street viaducts.

According to stakeholder input, most of the recommendations from the 1998 plan have been implemented or are in the process of being implemented. As a result, the City of Milwaukee and Menomonee Valley Partners have partnered to initiate an update to the valley plan. They expect the updated plan will focus on strategies and recommendations for the revitalization of the St. Paul Avenue/Menomonee River corridor and strategies to improve connections to adjacent neighborhoods.

The Layton Boulevard West neighborhood is located immediately south of the Menomonee Valley in Milwaukee's near south side. The area contains a large Hispanic population that is increasing. According to Layton Boulevard West Neighbors, Inc. (LBWN), the Hispanic population has increased from 42 percent to 66 percent between 2000 and 2010. LBWN is a community development organization that was founded in 1995 by the School Sisters of St. Francis to revitalize the area, promote economic development and housing rehabilitation and development.

The Layton Boulevard West neighborhood has experienced a high rate of housing foreclosures since the late 2000s as part of the national foreclosure crisis. According to LBWN, the neighborhood has 62 existing foreclosures and 160 more are pending in the courts. In spite of these challenges, the Layton Boulevard neighborhood has been experiencing renewed interest from young professionals and families that are attracted to its central location, affordable housing and walkable neighborhoods. According to LBWN, a strong demand for housing in the neighborhood continues and property values are rising. LBWN has a program for purchasing and rehabilitating homes and usually has multiple purchase offers. A typical home sells for $90,000. Other projects in the area that have contributed to an improved quality of life include the new Urban Ecology Center branch, the Valley Passage, and the Silver City Townhomes development. The Valley Passage reconnected the pedestrian link between the Layton Boulevard neighborhood and the Menomonee Valley. LBWN was a recipient of the Zilber Neighborhood

Initiative in 2010 and a Quality of Life Plan was created to help improve the neighborhood (Zilber Neighborhood Initiative 2011). The Clarke Square neighborhood also completed a Zilber Quality of Life Plan (Zilber Neighborhood Initiative 2009)and the Muskego Way neighborhood is working with the Milwaukee Local Initiatives Support Corporation (LISC) on a strategic neighborhood plan.

The Silver City commercial corridor is located within the Layton Boulevard neighborhood along National Avenue between approximately 43rd and 30th streets. The corridor has become known for its mix of ethnic restaurants and shops along National Avenue. According to LBWN, business turnover is decreasing, but the corridor is still fragile.

Two redevelopment districts are located to the east of I-43. The Walker's Point/Fifth Ward area has seen an influx of new investment that has spilled over from the Historic Third Ward neighborhood. Development projects often include renovations of former warehouse space with a mixture of residential and commercial uses. In addition, the City of Milwaukee has created a $6.2 million TID to redevelopment the Reed Street Yards. The redevelopment plan will create a water research and technology business park adjacent to the planned Milwaukee Water Council Accelerator building. The TID will provide public infrastructure, remove obsolete structures and facilitate environmental remediation.

Downtown Milwaukee. Exhibit 13 outlines the central business district within downtown Milwaukee. The district is generally located east of I-43, west of Lake Michigan, south of McKinley Avenue/Knapp Street and north of the Milwaukee harbor. According to a market profile of downtown Milwaukee (Progressive Urban Management Associates 2012):

- About 81,000 workers were employed in downtown in 2010, an increase of 3.8 percent since 2000.
- Downtown contains 12.1 million square feet of office space, which accounts for more than 43 percent of the Milwaukee area office market.
- The downtown retail market contains 780,000 square feet of space.
- Since 2000, downtown households and population have increased by 27.2 percent and 25.5 percent, respectively.
- As of 2010, nearly 13,300 housing units were located in downtown.
- Annually, 4.3 million visitors attend events at the BMO Harris Bradley Center, Henry Maier Festival Park and the Wisconsin Center District.
- More than $1.7 billion in investment has taken place in downtown since 2005.

According to local stakeholder input, downtown is very stable, with relatively slow but ongoing net growth. See stakeholder interview with downtown stakeholders in Appendix D.) The younger generations are very interested in living in downtown and this is encouraging new housing developments. Currently, the apartment market is very strong in downtown Milwaukee, according to downtown stakeholders.

In 2010, the city of Milwaukee adopted the *Downtown Area Plan* (City of Milwaukee 2010). The plan updates the original 1999 *Milwaukee Downtown Plan*, and builds on the policies and projects from the original plan to provide a vision for the future of downtown Milwaukee. The *Downtown Area Plan* recommends land use and development policies for downtown districts and it identifies eight catalytic projects to promote redevelopment within the downtown.

Downtown has three main neighborhood areas: East Town, Westown and the Historic Third Ward. East Town is located east of the Milwaukee River. Many people consider this to be the true central business district of downtown because it has the largest concentration of Class A office space and it contains downtown's high-end hotels and residential housing.

Westown is located on the west side of the Milwaukee River. It is characterized by large-scale developments that occupy large tracts of land. It includes several cultural, entertainment and government facilities such as the BMO Harris Bradley Center, the Wisconsin Center District, U.S. Cellular Arena, Milwaukee Public Museum, Milwaukee

County Courthouse, and the Shops of Grand Avenue. The office and residential markets have struggled in compared with the other areas of downtown. However, downtown stakeholders say the revitalization of the Wisconsin Avenue corridor is gaining some momentum and is starting to see some investment in housing (see Appendix D).

The Historic Third Ward is Milwaukee's former warehousing district that has been converted into a popular mixed-use residential/commercial district. The resident population has grown from 490 in 2000 to just over 1,530 in 2010. The Third Ward contains several mixed-use buildings with first-floor retail and residential use on the upper floors. It also has many specialty retail stores and is the location of the Milwaukee Public Market.

Downtown has many redevelopment districts. On the north end, The Brewery is a 20-acre historic rehabilitation project that is transforming the former Pabst Brewing site into a mixed-use urban district with educational facilities, offices, apartments, a hotel and restaurants. In close proximity to The Brewery is the Park East corridor that contains over 60 acres of land that was formerly occupied by a freeway. The corridor has seen many new investments such as the Manpower office building, the Flat Iron hotel and the The Moderne residential development. The county is evaluating options for the remaining land on the west side of the corridor. They are considering marketing the parcels for private development or reserving the land for a potential public/quasi-public use like the BMO Harris Bradley Center.

The Lakefront Gateway project is a recent project that was initiated by the state and City of Milwaukee. As part of the reconstruction of the Lake Interchange on I-794, WisDOT is going to move freeway ramps near the Hoan Bridge, which will free up land for development. At the same time, the City of Milwaukee will construct new local roads, including an extension of Lincoln Memorial Drive from Clybourn Street to Chicago Street. The freeway and local street projects will facilitate a new Northwestern Mutual Life Insurance office tower, a proposed high-rise Couture hotel/apartment tower, and a planned 18-story office building at 833 E. Michigan St. The project could also help to infill vacant and underutilized parcels in the Third Ward including the parking lots at the Italian Community Center.

Secondary Study Area Development Trends

This section provides a general overview of the land use and development trends for the secondary study area. Exhibit 14shows the existing and planned sewer and water services for the secondary study area provided by SEWRPC. Exhibit 15 shows the economic activity centers within the secondary study area.

Secondary Study Area - Milwaukee County

This section provides a description of the land use and development trends for the Milwaukee County portion of the secondary study area, focusing on areas of the county that were not previously described as part of the primary study area. The following subsections describe the northern, western and southern portions of the county.

Northern Milwaukee County. Northern Milwaukee County includes the north side of the City of Milwaukee and the North Shore suburban Milwaukee County communities of Shorewood, Whitefish Bay, Glendale, Fox Point, Bayside, River Hills and Brown Deer.

The residential neighborhoods within these areas range from very affluent North Shore suburban communities to some neighborhoods that are more fragile or even distressed within the City of Milwaukee. The neighborhoods within the City of Milwaukee, Shorewood and Whitefish are fairly dense and were mostly developed on an urban street grid. The North Shore communities of Glendale, Fox Point, Bayside and Brown Deer contain mostly medium density housing and tend to have a more suburban street pattern. The Village of River Hills is the only Milwaukee County suburb with a low density development pattern, with many home sites on five or more acres.

Northern Milwaukee County contains several major commercial nodes. The Bayshore Town Center near I-43 and Silver Spring Drive is the main regional shopping center in this area. It underwent a major redevelopment in 2006 that nearly doubled the square footage of the mall. Other community scale commercial nodes include the Brown Deer Shopping Center, River Point Shopping Center, Capitol Drive, Midtown and the former Northridge

Mall/Granville Station area. Several neighborhood level commercial districts are present such as the Mill Road Shopping Center, the Fox Point Shops, the Whitefish Bay commercial district along Silver Spring Drive and the Historic King Drive district.

Northern Milwaukee County contains a relatively large amount of industrial land uses. The 30th Street Industrial Corridor, which includes the Century City redevelopment area, creates a spine of industrial development through the central city. The Estabrook Corporate Park, Glendale Technology Center and Riverworks are located on the east side of I-43. Other industrial clusters include the Teutonia Avenue and Havenwoods areas in the City of Milwaukee and the Milwaukee Industrial Park on the city's northwest side. The Milwaukee Industrial Park is one of the largest industrial parks in the region with over 1,200 acres of land. The Village of Brown Deer also contains several industrial businesses.

Western Milwaukee County. Western Milwaukee County outside the primary study area includes the west sides of West Allis and Wauwatosa. These areas contain established residential neighborhoods that start to transition to a more suburban layout. The WIS 100 corridor is a spine of economic activity through these communities and contains a concentration of mostly commercial land uses and some industrial land uses. Mayfair Mall is located along WIS 100 in Wauwatosa.

Wauwatosa contains the Milwaukee County Research Park and the Milwaukee County Medical Center at the Milwaukee County Grounds, which are regionally significant employment centers. A new University of Wisconsin-Milwaukee engineering school is being constructed at a Milwaukee County Grounds site east of Highway 45 and north of W. Watertown Plank Road. A large retail development was recently built along US 45 in the redevelopment area known as the Burleigh Triangle in Wauwatosa.

The WIS 100 corridor is an important economic corridor to the City of West Allis. It contains a large Quad Graphics facility just south of I-94 as well as some additional industrial development to the north and south of Greenfield. Commercial and retail uses extend the length of the corridor. West Allis' has been using TIF to encourage business development along the corridor. The city's comprehensive plan identifies several redevelopment areas off of WIS 100 to attract additional business development and redevelopment (City of West Allis 2011).

Southern Milwaukee County. Southern Milwaukee County includes the far south and southeast sides of the City of Milwaukee, the south suburban communities (Greenfield, Greendale and Hales Corners), the South Shore communities along Lake Michigan (St. Francis, Cudahy and South Milwaukee) and the cities of Oak Creek and Franklin.

The far south side of the City of Milwaukee contains fairly stable and established residential neighborhoods with some commercial districts lining the main arterials. The 27th Street corridor is the largest commercial corridor in the area. Other economic centers in Milwaukee's south side include the area around the General Mitchel International Airport and the Port of Milwaukee.

The south suburban communities of Greenfield, Greendale and Hales Corners are established communities dominated by residential uses. The Southridge Mall area in Greenfield is the main area of economic activity in this portion of the county.

The South Shore communities of St. Francis, Cudahy and South Milwaukee are relatively small communities with established land uses. St. Francis is primarily composed of residential uses with some recent development of multifamily housing along the shore of Lake Michigan. Cudahy and South Milwaukee have historic roots with manufacturing and still maintain an industrial presence.

Franklin and Oak Creek have been a substantial source of economic development and residential growth for Milwaukee County as these communities are large in geographic scale and still have vacant land available for development. Both communities have extensive residential areas, industrial areas and commercial corridors. Northwestern Mutual built a large office campus in Franklin in 2002 and completed a second phase in 2008. Between the two phases, over 900,000 square feet of office space has been constructed. The campus is a regional employment draw. The 27th Street corridor, which is the border of the two communities, contains a concentration of retail businesses and is the focus of a joint planning effort between the two communities to

attract additional investment on vacant land and through redevelopment. Franklin contains three business/industrial parks: Franklin Business Park, Franklin Industrial Park and the North Cape Industrial Park. Oak Creek contains the Northbranch Industrial Park, which is the second largest industrial park in terms of acreage in the region. Starting in 2014, the Oak View Business Park in Oak Creek will be available for development sites.

Secondary Study Area - Waukesha County

Waukesha County contains a mixture of urbanized areas and non-urbanized areas. According to the Waukesha County comprehensive plan, urban land uses accounted for 35 percent of the county's land area in 2000 and nonurban uses accounted for 65 percent of the land area (Waukesha County 2009). Residential land uses made up the largest urban land use category in the county, accounting for 59 percent of the urbanized area. Agricultural land uses were the largest nonurban land use category, encompassing about 47 percent of all nonurban lands. According to the county's comprehensive plan, residential development has been responsible for the most substantial land use change in the county. Between 1960 and 2000, over 47,000 acres of land was converted to residential uses and over 100,000 households were constructed (Waukesha County 2009). Exhibit 14 shows the existing and planned sewer and water services for the secondary study area. This map helps to show the urban and nonurban areas of Waukesha County. The most highly urbanized areas of Waukesha County are concentrated on the eastern side of the county in New Berlin, Brookfield, Menomonee Falls, Waukesha and Pewaukee. The Hartland-Delafield-Oconomowoc area in western Waukesha County is also urban, but the intensity of development in this area is less compared with eastern Waukesha County communities.

The urbanized areas of Waukesha County contain large areas of medium- to low-density residential areas interspersed with industrial and commercial centers. The primary commercial and industrial job centers are located along major transportation corridors such as I-94 and US 45, and local arterials such as Bluemound Road and Moorland Road. See Exhibit 15 for economic activity centers. The Bluemound Road corridor in Brookfield contains the largest concentration of commercial uses in the county with office uses and retail uses including the Brookfield Square mall. The largest industrial centers are located in New Berlin, Muskego and Menomonee Falls, and along the US 45 corridor in Butler and Brookfield. More recent industrial development has occurred in Pewaukee and Sussex.

The sewered portions of Waukesha County communities that border Milwaukee County – Brookfield, Menomonee Falls and New Berlin – are largely built out, although some undeveloped parcels remain. These second-ring suburbs are expected to continue to be desirable locations for new office, retail and industrial development where infill sites are available. According to an interview with a local real estate professional, developers seek infill sites that have existing sewer and water services and are in close proximity to the existing population and workforce base. Locations in western Waukesha County are less desirable for commercial and industrial development because it is farther from the population base. See stakeholder interview with David Merrick, Irgens in Appendix C.)

Western Waukesha County has several relatively small communities and still has large tracts of undeveloped land remaining. However, there are many constraints that limit the intensity of development in this area, including limited sewer and water services, large environmental corridors, and as discussed above, greater distance to the existing concentrations of population and labor.

2.2.3 Natural and Historic Resources

This section discusses the natural and historic resources within the primary and secondary study areas.

2.2.3.1 Primary Study Area

Exhibit 16 shows a map of the natural, recreational and historic resources within the primary study area.

The primary study area lies within the Menomonee and Milwaukee River watersheds. These watersheds lie east of the subcontinental divide and drains to Lake Michigan. Due to extensive urbanization, the remaining natural, biological and recreational resources within the primary study area generally lie within narrow bands of environmental corridors along the Menomonee River, Honey Creek and Milwaukee River. The environmental corridors contain public parks and recreational trails and are owned by Milwaukee County, which preserves the

resources from development. A few critical species habitat areas are located along the Menomonee River environmental corridor and within the VA campus.

MMSD and its partners have been working to reduce flooding along the Menomonee River. Extensive flooding that occurred in Milwaukee County in 1997, 1998 and 2000 caused $96 million of damage to homes, businesses and neighborhoods (Milwaukee Metropolitan Sewerage District 2006). MMSD completed extensive work at the Milwaukee County Grounds to capture and store potential floodwater in one large basin that covers about 65 acres and holds 315 million gallons of water. A half-mile-long underground tunnel that is 17 feet in diameter channels excess water from Underwood Creek into the basin. From there, the water is slowly released into the Menomonee River, reducing the risk of flooding downstream (Milwaukee Metropolitan Sewerage District 2014). MMSD also completed the Hart Park project to reduce the risk of flooding in downtown Wauwatosa and downstream in Milwaukee along the Menomonee River. In addition, MMSD is in the process of removing 1,100 feet of a steep concrete bed in the Menomonee River north of Wisconsin Avenue and north of the I-94 study limits, a project that will eliminate a barrier to fish and wildlife passage. Stream restoration will open up 17 miles of river and 20 miles of tributaries, allowing fish to reach the Lepper Dam in Menomonee Falls. The USACE is reviewing the feasibility of removing the remaining 3,700-foot section of concrete lining downstream of Wisconsin Avenue and 300 feet of lining south of I-94.

Several public parks are located throughout the primary study area. Most parks are owned and managed by Milwaukee County including Mitchell Park and Washington Park. Several smaller parks, playgrounds and playfields are owned by the local communities. Milwaukee County has an extensive system of bike trails associated with the Oak Leaf Trail system. Portions of the trail are located within the primary study area along the Menomonee River corridor. The Hank Aaron State Trail is also located in the primary study area to the south of I-94. It bisects portions of West Allis and travels through the Menomonee Valley in Milwaukee.

The primary study area contains several properties that are on the NRHP. It also contains the following historic districts:

- Historic Layton Boulevard
- Walkers' Point
- Concordia
- McKinley Boulevard
- Highland Boulevard
- North Sherman Boulevard
- West Washington/North Hi-Mount Boulevards

As discussed in EIS Section 3.25, Historic Sites, WisDOT has identified the following historic resources within the immediate vicinity of the project corridor:

- Northwestern Branch of the National Home for Disabled Volunteer Soldiers National Historic Landmark (or Soldiers Home NHL)
- Soldiers' Home Reef National Historic Landmark
- Calvary Cemetery, eligible for listing on the National Register Historic Places (NRHP)
- Story Hill Residential Historic District, eligible for listing on the NRHP
- American Hair and Felt Company, eligible for listing on the NRHP.

Exhibit 16: Primary Study Area - Natural, Recreational and Historical Resources

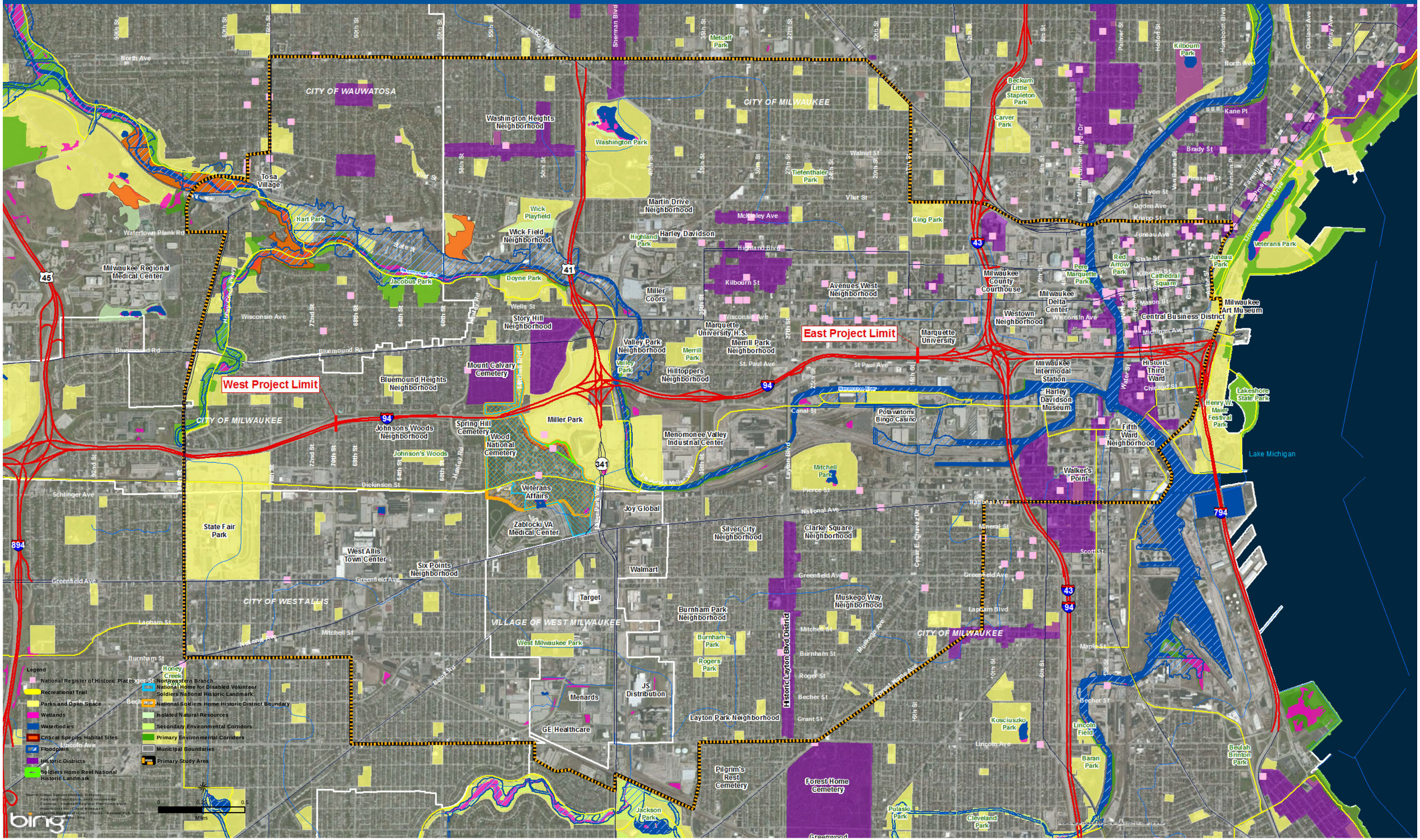
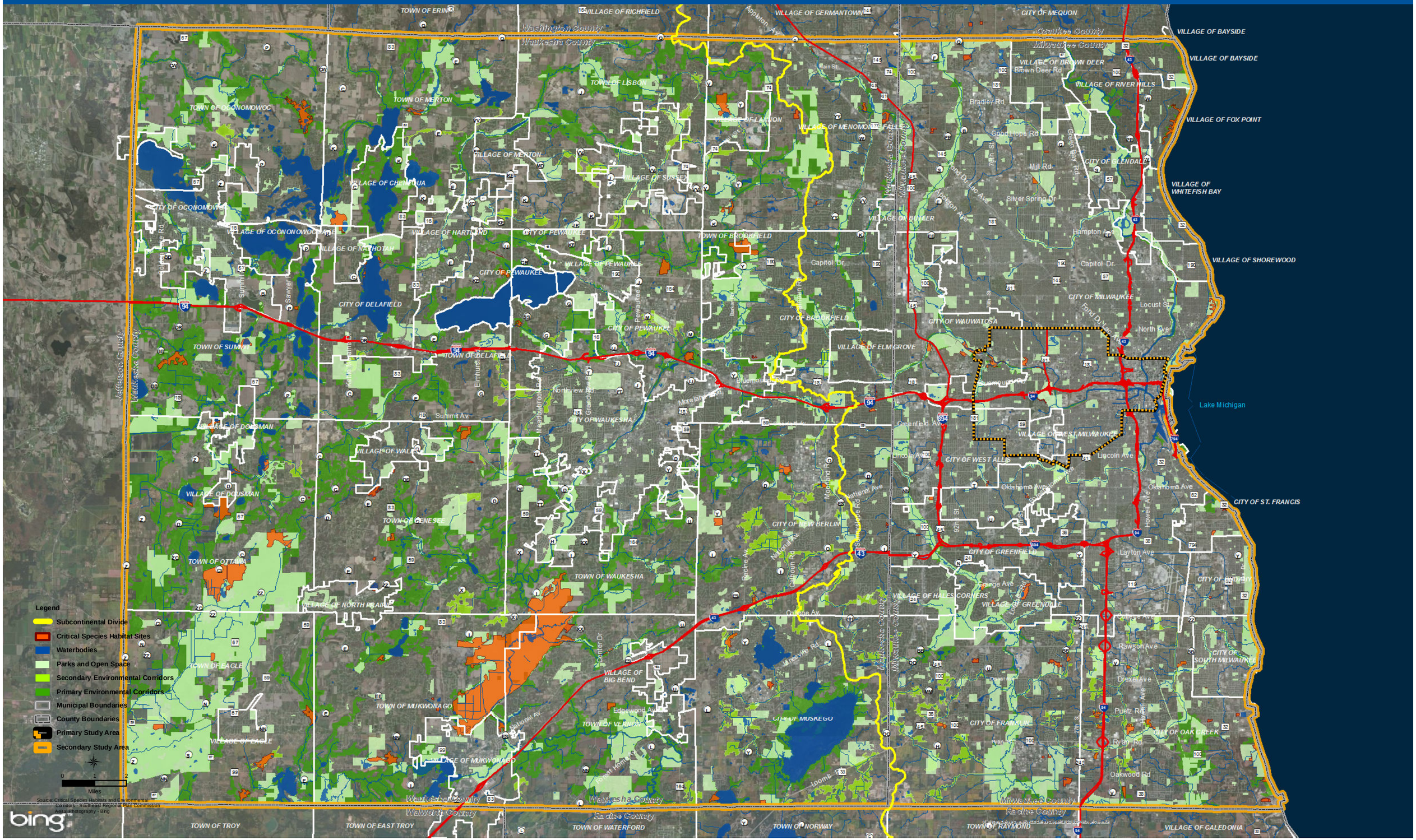


Exhibit 17: Secondary Study Area - Natural Resources



2.2.3.2 Secondary Study Area

This section discusses the natural and historic resources for the secondary study area. Exhibit 17 shows a map of the natural resources within Milwaukee and Waukesha counties.

Milwaukee County

Milwaukee County contains all or parts of seven natural watersheds. These include the entire Kinnickinnic River and Oak Creek watersheds; portions of the Fox River, Menomonee River, Milwaukee River, and Root River watersheds, and the areas draining directly to Lake Michigan (SEWRPC 2011). The subcontinental divide passes through the extreme southwestern corner of the county. The divide separates the Great Lakes-St. Lawrence River drainage basin from the Mississippi River drainage basin. All watersheds in Milwaukee County, except the Fox River, are located within the Great Lakes-St. Lawrence River drainage system.

Milwaukee County is highly urbanized, but still maintains a diverse natural resource base including the shores of Lake Michigan, major rivers and streams, small inland lakes and areas of quality woodlands and wetlands. According to SEWRPC, the most significant remaining natural resources in the county are contained in environmental corridors. The primary environmental corridors in the Milwaukee County are primarily located along major stream valleys and along the Lake Michigan shoreline and encompassed about 9,057 acres , or about 5.8 percent of the county, in 2000 (SEWRPC 2011). Secondary environmental corridors encompassed about 3,421 acres and isolated natural resource areas encompassed about 1,966 acres, in 2000 (SEWRPC 2011).

According to SEWRPC, Milwaukee County contains 103 miles of named perennial rivers and streams. Several surface waters in the county are considered impaired waters under Section 303(d) of the Clean Water Act. They include sections of the Kinnickinnic River, Menomonee River, Milwaukee River, Oak Creek, Root River, the Milwaukee Harbor estuary and outer harbor and several streams. (SEWRPC 2011)

Wetlands encompassed about 5,279 acres or 3.4 percent of the county area in 2000 (SEWRPC 2011). Many of the wetlands are contained within narrow bands along environmental corridors. Larger wetland areas can be found in Franklin and Oak Creek. In 2000, woodlands encompassed 4,564 acres, or about 3 percent of the county (SEWRPC 2011). According to SEWRPC, many of the wetland and woodland areas are impacted by invasive plant species.

Within Milwaukee County a total of 55 known natural areas have been identified, encompassing about 2,891 acres or 1.9 percent of the total area of the county. Also, a total of 55 critical species habitat sites have been identified in Milwaukee County encompassing about 796 acres, or 0.5 percent of the county.

As of 2006, there were 717 park and open space sites encompassing 20,809 acres of land in Milwaukee County (SEWRPC 2011). This includes all lands owned by a public agency and privately owned outdoor recreation sites. The majority of park and open space sites in the county are owned and managed by Milwaukee County. As of 2005, Milwaukee County owned 155 park and open space sites, encompassing 14,835 acres or 9.7 percent of the county's land area (SEWRPC 2011). These sites include 15 major parks and 10 major parkways.

Milwaukee County has a wealth of historic resources. In 2010, there were 246 historic places and districts in the county listed on the National Register of Historic Places and the State Register of Historical Places. According to SEWRPC, this is only a small fraction of the buildings, structures, and districts listed in the Wisconsin Architecture and History Inventory that could be eligible for historic designation (SEWRPC 2011). In 2010, 23,360 properties in Milwaukee County were listed in the Wisconsin Architecture and History Inventory (SEWRPC 2011).

As of 2010, there were 589 known prehistoric and historic archaeological sites in Milwaukee County listed in the State Historical Society's Archaeological Sites Inventory, including prehistoric and historic camp sites, villages, and farmsteads; marked and unmarked burial sites; and Native American mounds (SEWRPC 2011).

According to the 2012 Census of Agriculture, Milwaukee County had 82 farms containing 4,563 acres of land in 2012. The total market value of agricultural products sold in 2012 was $7,616,000. The majority of these sales were attributed to the nursery, greenhouse, floriculture and sod commodity category.

Waukesha County

The subcontinental divide bisects Waukesha County in a north-south direction. The divide separates the Great Lakes-St. Lawrence River drainage basin from the Mississippi River drainage basin. It has presents legal constraints for communities on the western side of the divided because there are laws, with some exceptions, that prohibit the diversion of any substantial quantities of Lake Michigan water across the divide. The Menomonee River and Root River watersheds that lie east of the subcontinental divide drain to Lake Michigan. The two other watersheds in the county are the Fox River and Rock River watersheds, which lie west of the subcontinental divide and drain to the Mississippi River. The Fox River encompasses the largest area of Waukesha County, accounting for about 58 percent of the county's land area. (Waukesha County 2009)

The secondary study area in Waukesha County contains large intact environmental corridors that are generally located along rivers and streams, around inland lakes and the Kettle Moraine. Many glacial features are present in Waukesha County, with vast tracts of these features preserved by state-owned natural areas and state parks. The environmental corridors have been somewhat more impacted by development on the eastern side, in the more urbanized areas of the county.

According to the Waukesha County comprehensive plan, Waukesha County contains the following natural and historic resources:

- 268 miles of perennial streams and 33 lakes
- 105 natural areas, 77 critical species habitats, and 52,652 acres of wetlands
- 28,931 acres of woodlands (found in large contiguous tracts along the Kettle Moraine and in smaller clusters throughout the county)
- 652 sites listed on the NRHP
- 500 historic and prehistoric archaeological sites

The Waukesha County Park System seeks to preserve natural resources and provide recreation opportunities. In 2008, the Waukesha County Park System consisted of 4,858 acres of parkland and 2,786 acres of greenways. (Waukesha County 2009) Other major public park and open space providers in the county include the following:

- The Wisconsin Department of Natural Resources (WDNR) owns 28 sites in the county including the Kettle Moraine State Forest, Vernon Marsh, Big Muskego Lake Wildlife Area, Lapham Peak, the Ottawa Lake Recreation Area, the Pine Woods Campground, and Old World Wisconsin.
- Local municipalities in Waukesha County own 10,058 acres of public parks and facilities.
- Non-profit preservation organizations such as the Waukesha County Land Conservancy own 1,255 acres of land and propose to acquire over 10,600 acres of land in the county.

Waukesha County completed a farmland preservation plan in 2011 and has incorporated it as part of the county's comprehensive plan. The plan recommends the preservation of the best remaining prime agricultural land in agricultural uses, which are located in the northwest and southwest corners of the county.

Nonurban lands in the county decreased by about 46,668 acres, or about 15 percent between 1963 and 1990. (Waukesha County 2009) Most of this loss resulted from the conversion of agricultural land to urban use. Agriculture remains a viable economic sector in Waukesha County. Agriculture has shifted from dairy farming to specialty crop production, orchards, greenhouses, and plant and tree nurseries that are responding to the growing demand for locally grown products in adjacent urban areas. (Waukesha County 2009)

2.3 Steps 3 and 4: Identify Impact-Causing Activities of the Proposed Project Alternatives and Identify Potentially Significant Indirect Effects

Step 3 of the analysis examines the No-Build Alternative and the Modernization Alternatives, and it identifies impact-causing activities for each alternative. Step 4 builds on Step 3 by identifying the indirect effects that may be caused by the project's impact-causing activities. The two types of indirect effects that are being considered include land use effects and encroachment-alteration effects. The effects are evaluated in greater detail in the next step (Section 2.4, Step 5).

No-Build Alternative. The impact-causing activities of the No-Build Alternative relate to its lack of action, which does not address the purpose of and need for the project with respect to safety concerns, existing highway deficiencies, and future traffic demand. Under this alternative, congestion and vehicle crashes would continue to increase, resulting in greater travel times and less reliable travel throughout the corridor. Additionally, more commuter traffic would shift to local arterials to avoid the congested freeway, which could diminish the neighborhood and business environments along several corridors in the primary study area by increasing pedestrian-vehicle conflicts.

The No-Build Alternative could have indirect effects to land use because transportation mobility would decline, hindering economic development potential in the primary study area and causing development to shift to other areas of the region that are less congested and have more reliable travel times. The No-Build Alternative also would not present the opportunity to bring the freeway system up to current stormwater management standards, which indirectly affects water quality in adjacent streams and rivers.

Modernization Alternatives. The impact-causing activities of the Modernization Alternatives include the following:

- Adding a new travel lane in each direction.
- Modifying existing interchange access points.
- Encroachment of infrastructure on adjacent resource.

The increased mobility that would result from the project's new travel lanes could influence decisions about local and intraregional development locations. Modifications to existing interchange access points could cause indirect land use effects by changing the economic competitiveness of an area based on whether a Modernization Alternative maintains, increases or reduces local access to the freeway. Encroachment of the freeway could indirectly affect neighborhood quality of life, the vitality of business corridors, and the quality of natural and historic resources.

2.4 Steps 5: Analyze the Indirect Effects and Evaluate Assumptions

Step 5 evaluates the likelihood and magnitude of the indirect effects under the No-Build Alternative and the Modernization Alternatives. The following subsections first discuss potential land use effects that may result from new travel lanes and modifications to interchange access points. Then, the second subsection evaluates the potential for encroachment-alteration effects to neighborhoods, business districts, and natural and historic resources.

2.4.1 Land Use Effects

The reason for evaluating a transportation project's land use effects is because several research studies have shown that land use effects can result from improved transportation access that enables faster or more reliable travel between destinations, or by new access to destinations. The most recent research on this topic was published in 2012 by the Transportation Research Board (TRB). The report titled *Interactions Between Transportation Capacity, Economic Systems, and Land Use* analyzed 100 transportation case studies that documented the long-term before-and-after economic impacts of a variety of highway capacity investments

(Strategic Highway Research Program 2012). According to the report, case studies confirmed the following typical sequence of land use and economic impacts that occur over time as a result of improved transportation accessibility:

- Land becomes more attractive as a place to live, work or recreate.
- Building construction and investment occurs.
- Residential and employment growth occurs.
- Local property tax revenues rise and sales and income taxes increase.

It should be noted that improved transportation accessibility alone is not enough to cause land use change. As documented in the TRB report, supportive local factors such as availability of land; local government development policies and incentives; availability of complimentary infrastructure (i.e. sewer and water); and local economic conditions affect the magnitude of a transportation project's long-term economic impact (Strategic Highway Research Program 2012). The report states that transportation case studies with supportive local factors generated substantially more positive economic development outcomes. Conversely, transportation case studies that lacked local supporting factors or had distressed economies were associated with fewer economic development results.

Another important consideration that influences the magnitude of land use effects is the extent and maturity of existing transportation infrastructure. As discussed in the NCHRP Report 466, the influence of highway projects on land use diminishes with successive improvements because each new improvement brings a successively smaller increase in accessibility (National Cooperative Highway Research Program 2002). This means that new highways have a much larger effect on land use compared with an existing facility that is expanded.

The following subsections evaluate the land use effects that could result from the project's impact causing activities identified in Section 2.3 and considers the magnitude of those effects as they relate to the presence of supportive local development factors and the maturity of the transportation system.

2.4.1.1 New Travel Lanes

Under the Modernization Alternative, one new travel lane in each direction would be added to the study corridor for a total eight lanes to address existing and projected traffic congestion. This would reduce travel times during peak travel periods and it would make travel times more reliable throughout all times of the day. As discussed in EIS Section 3.3, Transportation Service, Modernization Alternatives generally would operate at a level of service (LOS) D or better in the design year (2040) peak hour, compared with LOS E and LOS F under the No-Build Alternative. I-94 would operate at LOS E under the At-Grade alternative through the narrow segment past the cemeteries.

As documented at the June 6, 2013, focus group meeting, stakeholder input uncovered two different points of view regarding the land use effects of the proposed new travel lanes: Several stakeholders stated that additional travel lanes would encourage more trips into and within the primary study area, which would help support existing business districts and facilitate redevelopment plans; other stakeholders stated adding new travel lanes to the freeway would facilitate development in Waukesha County by improving the commute between the two counties. A discussion these two potential effects are discussed below.

Facilitates Primary Study Area Development

Modernization Alternatives

Stakeholder feedback gathered for this analysis indicates that existing congestion along I-94 reduces the area's accessibility, which diminishes the economic development potential of the primary study area. At the June 6, 2013, focus group meeting, several economic development professionals and a real estate developer who represent areas in West Allis, Wauwatosa, West Milwaukee and Milwaukee, stated capacity expansion was needed because congestion along I-94 makes it harder to market properties within the primary study area and to

compete with other locations in the region that have less congestion. Follow-up interviews with other local private-sector real estate professionals (see Appendix C) also found that additional capacity on the freeway would help attract more development to the primary study area. The interviewees stated that some businesses avoid primary study area locations (including downtown) because they are concerned about attracting employees who do not like to travel along the I-94 corridor due to its congestion. The economic development director for the downtown Milwaukee BID also reported that improved traffic flow between downtown and the western suburbs would help existing downtown businesses recruit employees and would encourage more business owners to consider downtown locations (see Appendix D).

Based on stakeholder feedback, the study team determined that improved mobility and travel time reliability along I-94 from new travel lanes would facilitate development within the primary study area because people and businesses would not be detracted from the area by traffic congestion. As a result, improved mobility could have the following effects within the primary study area:

- **Maintain the economic competiveness of the existing business districts and neighborhoods.**
  This effect could reduce residential, commercial and industrial vacancy rates within existing developments by encouraging more people and businesses to locate within the primary study area; facilitate the movement of freight; and support neighborhood revitalization efforts. Exhibit 13 shows the location of existing commercial corridors, industrial areas and neighborhoods.

- **Encourage redevelopment of former industrial areas and underutilized parcels.**
  This effect could facilitate higher density residential and commercial land uses that are planned for some areas within the primary study area. Several redevelopment areas within the primary study area are shown on Exhibit 13. Some examples include the Renaissance Faire and Summit Place developments in the West Allis Six Points area; retail and industrial uses along Miller Park Way in West Milwaukee; the St. Paul Avenue corridor in Milwaukee's Menomonee Valley; and various redevelopment areas in downtown Milwaukee such as the Lakefront Gateway, The Brewery, Park East and Reed Street Yards.

- **Improve the business environment along local arterial streets.**
  Traffic simulation models developed for the study corridor indicate that adding new travel lanes to the freeway would divert some traffic from local arterials to the freeway. Less congestion along local arterials could improve the business environment along arterial corridors by improving pedestrian mobility and safety, and creating fewer conflicts between pass-through commuter traffic and local traffic. Stakeholder feedback indicates that this effect is not likely to change the types or sizes of businesses located along these corridors, but the study team determined it could increase customer patronage of the businesses and ultimately reduce commercial vacancy rates. The Double Deck alternative could have a more positive effect on business corridors compared with the At-Grade alternative because traffic analyses show that more traffic would divert to the freeway from the local arterials under the Double Deck alternative. The At-Grade alternative would also place additional traffic on local arterials because the I-94 interchange at Hawley Road would be closed, or only partial access to and from the west would be provided. Business corridors that are particularly affected by high traffic volumes include Bluemound Road in Wauwatosa and Milwaukee; Miller Park Way in West Milwaukee; Greenfield/National Avenue in West Allis; and National Avenue in Milwaukee. Exhibit 13 shows the commercial corridors located along these arterial corridors.

- **Support the vitality of the numerous regional cultural, recreational and entertainment venues.**
  The primary study area has numerous cultural, recreational and entertainment venues that draw visitors from the region and beyond. Because these venues draw from a large regional area, accessibility is a key factor in their long-term viability. Stakeholder input has indicated that these venues create a synergy with local economic development and neighborhood revitalization efforts. Of note are the venues within and around the Menomonee Valley such as Miller Park, Potawatomi Bingo Casino, Mitchell Park Horticultural Conservatory, the Hank Aaron State Trail and the new Three Bridges Park. These venues are within close proximity to adjacent residential areas that have ongoing neighborhood revitalization efforts such as Avenues West, Layton Boulevard West and Clarke Square. See Exhibit 13 for the locations of some of these venues and

the locations of neighborhood revitalization areas. The venues help improve the quality of life for adjacent dense, urban residential areas by providing recreational opportunities and by bringing in potential customers to support local businesses.

Transportation alone cannot cause land use change; therefore, the study team evaluated whether other local factors are present that support development within the primary study area. Based on the research conducted in Section 2.2.2.2, Development Trends, the study team found that the communities within the primary study area have policies and plans in place that support local economic development and neighborhood revitalization. All the communities in the primary study area utilize TIF and other tools to assemble land and provide needed infrastructure to encourage development. Also, several efforts are being made to revitalize urban neighborhoods and existing commercial corridors within the primary study area including the use of BIDs, target investment neighborhoods (TINs) and various home improvement programs. Many of the efforts have been successful, as evidenced by employment growth in some areas of the study area (West Milwaukee and West Allis) and increasing population in some of the primary study area census tracts. See Section 2.2.1 for more information about socioeconomic trends.

Although adding additional travel lanes would help facilitate planned development in the primary study area, the magnitude of this effect is not expected to be substantial. The primary study area is a fully developed urban area with established land use patterns. It also has a mature transportation system that is composed of an extensive arterial network and numerous connections to the regional freeway system. As a result, the incremental mobility provided by new travel lanes in this context is not likely to be great enough to substantially change land use patterns within the primary study area. This is supported by research that has shown that the extent of indirect land use effects is influenced by the maturity of the regional transportation system; and greater effects are associated with new facilities compared with existing facilities that are expanded (National Cooperative Highway Research Program 2002) (Boarnet and Haughwout 2000).

No-Build Alternative

Under the No-Build Alternative, development is likely to occur as planned. However, the economic development potential of the primary study area is expected to be less under the No-Build Alternative in comparison to the Modernization Alternatives because increasing congestion makes it harder for businesses in the primary study area to compete with other areas of the region that have less congestion.

Developments that would be most affected by the No-Build Alternative are developments that draw patrons and workers from the regional area. Examples include the Miller Park Way corridor in West Milwaukee, some destinations in West Allis such as the Renaissance Faire and Summit Place office developments and large regional entertainment venues like Miller Park and Potawatomi Bingo Casino. The redevelopment potential of the 30th Street industrial corridor could also be affected since stakeholders at the June 6, 2013 focus group meeting said this corridor relies on US 41 to access I-94. In downtown, businesses could be affected by reductions in access as a result of increasing congestion since the highly skilled workforce required by the downtown service industry must be able to attract workers from a large regional area. West Allis' future vision for redevelopment of the Milwaukee Mile in State Fair Park would also be affected by the city's ability to attract employees and customers from a large regional area. See Section 2.2.2.2 for more detailed descriptions of these developments.

Under the No-Build Alternative, a large amount of traffic would continue to divert from the freeway to the local arterials, which diminishes the business environment along several commercial corridors in the primary study area. This effect would increase over time as regional traffic is projected to increase. Arterials with business districts in close proximity to the freeway such as Bluemound Road in Wauwatosa and Milwaukee, Miller Park Way in West Milwaukee, and National Avenue in West Allis and Milwaukee may be most affected by the No-Build Alternative. The increasing traffic along these arterials makes it more challenging for local communities to implement their land use plans for these areas, resulting in less investment and fewer employment opportunities.

Growth-Inducing Effects in Waukesha County

Modernization Alternative

The I-94 East-West corridor is the major transportation link between employment centers in Milwaukee County and the suburban communities in Waukesha County. As discussed in Section 2.2.1, about 60,000 of Waukesha County's work force is employed in Milwaukee County, accounting for about 31 percent of Waukesha County workers.

The proposed new travel lanes along the project corridor would improve mobility between these destinations by reducing travel times for commuters during peak travel periods and making travel times along the corridor more reliable. As discussed previously, transportation accessibility improvements can result in long-term economic impacts by making land more attractive for investment. (Strategic Highway Research Program 2012) As a result, improved mobility between Milwaukee and Waukesha counties could facilitate additional residential development in Waukesha County by making it easier for people to work in downtown and other places in Milwaukee County and live in Waukesha County. A growing population would, in turn, encourage additional commercial and industrial development in Waukesha County.

Since land use and transportation are inherently connected, adding new travel lanes could also facilitate the continued redistribution of population between Milwaukee and Waukesha counties. According to SEWRPC, about 52,300 people moved from Milwaukee County to Waukesha County between 2000 and 2010, and 82,640 people moved from Milwaukee County to Waukesha County, resulting in a net in-migration of 30,340 people for Waukesha County (SEWRPC 2013).

Transportation alone cannot cause land use change or encourage economic development; therefore, the study team evaluated whether other local non transportation factors are present that support development in Waukesha County. Based on research conducted in Section 2.2.1, the study team found the largest historic redistribution of population and employment in the region occurred between Milwaukee and Waukesha counties. Between 1960 and 2010, Milwaukee County's share of population and employment changed from 66 percent to 47 percent, and from 75 percent to 49 percent, respectively. During the same time period, Waukesha County's share of population and employment changed from 10 percent to 19 percent, and from 5 percent to 23 percent, respectively. In addition, land use and development trend research discussed in Section 2.2.2 indicates that many communities in Waukesha County have zoning and other policies in place to encourage residential, commercial and industrial development, and communities are utilizing TIF to encourage redevelopment and build industrial parks. Furthermore, many towns in the non-urbanized areas of Waukesha County (See Exhibit 14 for areas without sewer and waters services) allow low-density residential subdivisions and very little agricultural preservation zoning remains within the county.

Because land use and transportation are connected, it is reasonable to assume new travel lanes would support ongoing development in Waukesha County especially because local governments have established policies and plans that support development. However, the magnitude of induced development in Waukesha County is not expected to be substantial compared with existing conditions or the anticipated development levels of the 2035 regional land use plan. While the original construction of I-94 greatly improved accessibility to Waukesha County and most likely helped to facilitate the spread of development along the I-94 corridor in the county, the addition of new travel lanes is expected to have a much smaller effect on induced development in Waukesha County for the following three main reasons:

1. I-94 is an existing freeway corridor that is part of a mature regional transportation system that already has a high degree of accessibility. This is supported by research that has shown that the extent of indirect effects is influenced by the maturity of the regional transportation system; and greater effects are associated with new facilities compared with existing facilities that are expanded[1] (National Cooperative Highway Research Program 2002) (Boarnet and Haughwout 2000).Waukesha County has 14 interchanges along I-94 within its county borders, and SEWRPC's 2035 regional transportation plan recommends only one new interchange in Waukesha County – at Calhoun Road. Fourteen interchanges are available in Milwaukee County between the Milwaukee-Waukesha county line and Lake Michigan. An extensive arterial network that connects with the regional freeway system has also been constructed to serve almost all areas within the two counties. Even the less developed areas of the region are still accessible by the transportation network.
2. Travel-time savings during peak travel periods is not expected to be great enough to substantially change regional land use patterns or to substantially shift development from one area of the region to another. Traffic analyses have estimated that the travel-time savings in 2040 for the Double Deck alternative going westbound would be about 3 minutes to 3 ½ minutes on average during the PM peak period (3 to 6 p.m.). Many practitioners who study transportation-related indirect effects believe at least 10 minutes of travel-time savings is needed before intraregional land use patterns are substantially affected. (Avin, et al. 2007) In addition, adding new travel lanes would not shorten the distances among destinations, nor would it serve lands that do not already have access to the freeway. The new travel lanes also would not affect travel times during non-peak periods, when traffic is currently typically free-flowing.
3. Land use patterns and development have already established themselves around I-94 and other transportation corridors in the region. Because so much development has occurred, it is difficult to distinguish the role of the freeway from other factors that influence development, especially because the region already has a high level of transportation accessibility, and employment centers already are distributed throughout Milwaukee and Waukesha counties and other parts of the region. This is demonstrated by the almost equal traffic patterns between the two counties. According to SEWRPC, the average weekday person trips in 2001 between counties was 237,500 from Milwaukee County to Waukesha County, and 239,700 from Waukesha County to Milwaukee County – a difference of 2,200 trips. (SEWRPC 2006) As discussed in the TRB report, isolating economic impacts from transportation projects within large, growing metropolitan areas is difficult because these impacts become more dispersed and obscured by other economic influences the farther away one moves from the transportation investment (Strategic Highway Research Program 2012).

In addition, the amount of undeveloped land that is available in the suburban areas closest to the project corridor in eastern Waukesha County is limited because land uses within Brookfield, New Berlin and Menomonee Falls have become established. The City of Brookfield is mostly built out, and with the exception of some remaining tracts of open land, the urbanized/sewered portions of New Berlin and Menomonee Falls largely are developed. The development intensity of the non-urbanized areas of New Berlin and Menomonee Falls are limited by a lack of existing and planned water and sewer services (see Exhibit 14). Furthermore, development under existing transportation conditions has already spread beyond the eastern Waukesha County communities and as far west as Oconomowoc. This conclusion is supported by a stakeholder meeting conducted with the Waukesha County planner manager, who stated that development has already spread to western Waukesha County and adding a new travel lane to the I-94 corridor would not change already established land use patterns in the county. (See meeting notes in Appendix A.)

[1] In the report, *Do Highways Matter? Evidence and Policy Implications of Highways' Influence on Metropolitan Development,* researchers found that the first limited access or interstate highway built in an urban area brought large improvements in transportation access and resulted in large increases in land prices. However, the researchers found that "as more highways are built, and the metropolitan highway network matures, the incremental effect on accessibility from new or improved highways decreases, thus accounting for a smaller change in land prices due to any access premium." The researchers further discusses that metropolitan highway investments still influence land use, but at a much smaller geographic scale, rather close to the project. (Boarnet and Haughwout 2000)

Development in the non-urbanized areas of western Waukesha County is limited by a lack of sewer and water facilities, and large environmental corridors that largely are preserved by local zoning ordinances or public ownership (see Exhibit 14 and Exhibit 17). Also, the development potential of western Waukesha County is limited because it is farther from the existing concentrations of population and labor. This was confirmed by an interview with a local real estate developer who stated that locations in western Waukesha County such as Oconomowoc are less desirable for commercial and industrial development because they are farther from the population base and available workforce. Available infill development sites in Milwaukee County and eastern Waukesha County are much more desirable from a real estate perspective. (See stakeholder interview with David Merrick, Irgens in Appendix C)

No-Build Alternative

Under the No-Build Alternative, the redistribution of population and employment between Milwaukee and Waukesha counties would continue because I-94 already connects the two counties and already provides access to lands in Waukesha County. Plus, Waukesha County has an established arterial network that connects to the regional freeway system, and even the less developed portions of the county already are accessible by the region's transportation system. As discussed previously, so much development has occurred in Waukesha County that it is difficult to distinguish the role of transportation from other factors that influence development such as local government policies and quality of life issues including a person's place of employment, school districts and housing style choices. Also, Waukesha County already has a substantial residential and employment base that is likely to generate additional growth in housing units and jobs regardless of the I-94 East-West alternative.

Based on the population and employment trends discussed in Section 2.2.1, the pace of the population and employment redistribution between the two counties has been slowing, and according to SEWRPC it would continue to be moderated through 2050. These trends are likely to continue regardless of the alternative chosen for I-94 because they are influenced by larger-scale national economic and demographic trends. For example, many urban areas around the United States over the past few decades have seen a resurgence of new development in downtowns and central locations, which is at least partially related to more young professionals and empty-nesters choosing urban-living lifestyles. This national trend can also be seen in Milwaukee. According to the 2012 market profile of downtown Milwaukee (Progressive Urban Management Associates 2012), households and population in downtown Milwaukee have increased 27.2 and 25.5 percent, respectively, since 2000.

The growing number of residents living in downtown Milwaukee and other urban neighborhoods means reverse commuting is on the rise. According to the 2012 market profile (Progressive Urban Management Associates 2012), only 3.2 percent (2,595) of the 81,001 workers employed in downtown also live in downtown. As a result, increasing congestion under the No-Build Alternative could make it more challenging for downtown residents and other Milwaukee County residents to commute to other counties, especially to Waukesha County, which contains the second largest number of jobs in the region.

2.4.1.2 Modifications to Interchange Access Points

Land uses in the primary study area have developed around the existing interchange access points. Stakeholder outreach conducted for this analysis demonstrates how important the access points are to the continued redevelopment and revitalization of the business and residential areas within the primary study area. Potential indirect land use effects related to the modifications of individual access points are discussed in the following subsections.

70th Street/68th Street Interchange

The existing split diamond interchange serves commercial and residential areas in Wauwatosa, Milwaukee and West Allis. Under the Double Deck alternative, a full-access interchange would remain. The main change is that westbound travelers would exit the freeway farther ahead than they currently do under existing conditions. Currently, westbound I-94 traffic exits at about 66th Street. Under the Double Deck alternative, westbound

travelers would have to merge into an exit-only lane around Hawley Road (at about 60th Street) and proceed on a collector-distributor (C-D) road that would take travelers to 68th and 70th streets. The exit ramp from eastbound I-94 would be similar to existing conditions.

Representatives from the City of West Allis have expressed concerns about the proposed changes to this interchange. They are concerned that under some alternatives, access will be less direct, making the community's redevelopment plans more challenging. The study team maintains that the interchange configuration proposed under the Double Deck alternative would not affect land use patterns within the primary study area or hinder economic competiveness because the alternative maintains the existing access points and improves safety. Travelers would quickly become accustomed to the modifications and would be able to follow freeway signage. The C-D road would have posted speed limits between 45 mph and 50 mph and no traffic lights, allowing efficient movement of traffic. Also, the addition of new travel lanes along the freeway mainline should help offset increases in travel time that may result from travel along a C-D road. Most importantly, the commercial and employment districts that are served by the 68th Street and 70th Street corridors such as the Town Center, Summit Place and MATC campus in West Allis, and the Bluemound Road and State Street corridors in Wauwatosa, contain neighborhood-serving and destination-type businesses and are not highway-serving businesses such as gas stations and fast-food restaurants that rely mostly on impulse stops from customers. These statements are supported by interviews conducted with local real estate developers who stated the C-D roads would require people to learn a new behavior but would not affect development trends in Wauwatosa or West Allis (see Appendix C).

If the At-Grade alternative is chosen for the Cemetery Segment, the 68th/70th Street interchange would be reconstructed as a split diamond with no C-D roads. This provides the most direct access and is most similar to existing conditions. The interchange option would be viewed most favorably from an economic development standpoint; however, closing the Hawley Road interchange is not an acceptable alternative to local stakeholders as discussed in the following section.

Hawley Road Interchange

Under the Double Deck alternative, the Hawley Road Interchange would remain open in a configuration that is similar to existing conditions. Maintaining the interchange access in all directions would continue to support existing neighborhoods, businesses and planned development within Milwaukee, Wauwatosa, and West Allis. This interchange is used by several neighborhoods to the north of I-94 such as Bluemound Heights, Story Hill, Jacobus Park, Wick Field and Washington Heights in Milwaukee and Wauwatosa and neighborhoods to the south of I-94 such as Johnsons Woods, Six Points and Jackson Park in West Allis, West Milwaukee and Milwaukee. It also provides access to several commercial corridors in West Allis, Milwaukee and Wauwatosa and to the Veteran's Administration campus. See Exhibit 13 for the location of neighborhoods and business districts near the Hawley Road interchange.

Under the At-Grade alternative, two options area being evaluated for the Hawley Road interchange. One option would close all interchange ramps and the other option would provide partial access to/from the west. Based on stakeholder feedback, the study team determined that closing or partially closing the interchange would affect the development potential of the business corridors that it serves to the north and south of the freeway. The magnitude of this effect is not expected to be substantial for areas in Wauwatosa and Milwaukee because alternate access is available via interchanges with US 41. However, the closure or partial closure of the interchange would have a large negative effect on the City of West Allis. This effect is discussed in the subsequent paragraphs.

The study team determined the City of West Allis would be the most impacted by the closure or partial closure of the Hawley Road interchange, which serves important redevelopment areas and employment generators for the city. The loss of freeway access at Hawley Road could substantially diminish the economic competiveness of existing commercial uses and hinder additional redevelopment opportunities along the 60th Street corridor (Hawley Road turns into 60th Street in West Allis). See Exhibit 13. This area of West Allis is not well connected to the local street system and therefore, alternate access to nearby interchanges would be circuitous.

According to an interview with the owner of the Renaissance Faire office building located at 801 S. 60th Street, the closure or partial closure of the Hawley Road interchange would make it very difficult to attract new tenants to the office building and would likely result in the loss of existing tenants. They state the office tenants selected this location for its convenient freeway access at Hawley Road. (See stakeholder interview with Van Buren Management in Appendix C.) The office building is typically used for back office functions by larger employers in the area that need convenient travel between back office functions and their downtown locations. According to the owner of the building, if the interchange is removed they may not invest in future redevelopment phases of the Renaissance Faire building and would most likely not pursue other redevelopment opportunities in this corridor. See Section 2.2.2.2 under City of West Allis for more information about the Renaissance Fair building and other developments in West Allis.

The 60th Street corridor and the Renaissance Faire building are seen as a gateway to the City of West Allis and are important to the city's job creation goals and ongoing redevelopment efforts. The potential loss of employment at this building and other nearby commercial uses along 60th Street could diminish existing and future employment gains that West Allis has been working to achieve over the past few decades to rebuild their local economy since the departure of Allis Chalmers in the 1980s. The diminished economic development potential of this area was also stated as a concern by other local real estate professionals that were interviewed for this analysis. They stated the closure of the Hawley Road interchange would be problematic for existing and planned development in West Allis along the 60th Street corridor and the Six Points area. See Appendix C**.**

The closure or partial closure of the Hawley Road interchange would also place greater pressure on local arterials such as Bluemound Road, National Avenue and Miller Park Way by diverting traffic to adjacent roadways. This would increase traffic on those routes and could make them less desirable places to conduct business. According to local stakeholders, many local arterials already have high traffic volumes and neighborhood quality of life and business development would be susceptible to additional increases in traffic volumes.

Zablocki Drive Overpass

The Zablocki Drive overpass is primarily used to access the VA campus from Bluemound Road. It is an important access point because it connects the cemeteries on either side of I-94 and maintains access between the cemeteries even during Miller Park events. Under the At-Grade alternative, Zablocki Drive would be replaced by a longer bridge in the same location. Under the Double Deck alternative, Zablocki Drive would be moved east next to, but separate from, General Mitchell Boulevard. Since access is being maintained, no indirect effects are expected to the cemeteries or the VA from the reconstruction of Zablocki Drive overpass.

Mitchell Boulevard Interchange

The Mitchell Boulevard interchange would be closed under all Modernization Alternatives and replaced by an overpass or underpass. The interchange serves Miller Park, the VA campus, and the Story Hill neighborhood. Based on stakeholder feedback, the removal of this interchange may cause some minor inconvenience for adjacent users, but most stakeholders agree that Mitchell Boulevard is not a safe location for an interchange.

Land use effects are not anticipated from this closure because the interchange would be replaced by a new service interchange embedded in the Stadium Interchange. Also, it is a relatively low-volume interchange compared to the other interchanges within the I-94 study area (except on Brewers' game days). Plus, land uses are well established in this area and access across the freeway would be maintained by an over/underpass that is separate from Zablocki Drive. This would avoid conflicts between traffic going to the VA facilities and traffic going to Miller Park events.

Stadium Interchange

Under all Modernization Alternatives the Stadium Interchange would be reconstructed as a modified single-point interchange. All of the exit ramps from I-94 to US 41/Miller Park Way would be free-flow ramps with no traffic signals. The ramps from southbound US 41 to eastbound I-94 and from northbound Miller Park Way to westbound I-94 would be controlled by a traffic signal. Also, a traffic signal would control through traffic on US

41/Miller Park Way. According to local stakeholder input, the US 41/Miller Park Way corridor provides convenient access to I-94 for neighborhoods and business districts as far north as North Avenue and as far south as Lincoln Avenue. (See Exhibit 13, Development Trends.)

Representatives from the Village of West Milwaukee have expressed concerns about the proposed stadium interchange design and prefer a full system interchange with free flow ramps in all directions. They are concerned the proposed interchange will not handle traffic as well as a full system interchange and could increase congestion along Miller Park Way. According to village officials, Miller Park Way is already a heavily traveled corridor and more congestion could make it a less desirable commercial corridor. Some stakeholders from the City of Milwaukee were not concerned about the alternative from a land use perspective because they would like to see the portion of US 41 to the north of I-94 reconfigured into an arterial roadway that would provide better connections between neighborhoods and accommodate more modes of transportation. Representatives from the City of Wauwatosa stated that the proposed interchange would not affect Wauwatosa's land use/development patterns because the existing local service interchanges along US 41 would remain open.

It is the project team's position that the proposed Stadium Interchange would not affect land use patterns because the interchange's traffic operations would remain at an acceptable level of service. Also, the interchange maintains existing interchanges along US 41/Miller Park Way that provide access to Wauwatosa, Milwaukee and West Milwaukee.

New Embedded Interchange within Stadium Interchange

Under all Modernization Alternatives on the East Segment (On-Alignment and Off-Alignment) a new local service interchange would be embedded within the Stadium Interchange. The purpose of the new interchange is to replace the access currently provided by the Mitchell Boulevard interchange. No land use effects are expected as a result of this interchange because the land around the interchange is developed, and the Menomonee River and Canadian Pacific Railway makes access to the adjacent land challenging. Also, the area already has access through the US 41 interchange at Wisconsin Avenue and the new embedded interchange would not have a noticeable change on traffic patterns in the area. Furthermore, the City of Milwaukee does not have any changes to land use planned for this area that includes the Miller-Coors facility.

35th Street Interchange

The 35th Street interchange serves the Layton Boulevard West neighborhood and the Silver City Main Street district along National Avenue to the south and destinations to the north such as the Merrill Park neighborhood, Marquette University High School, and the business center being redeveloped by the Potawatomi Business Development Corporation at the former Concordia College campus. This access point is important to neighborhoods and business areas containing environmental justice populations to the north and south of the freeway.

Under all Modernization Alternatives on the East Segment (On-Alignment and Off-Alignment), a full-access interchange at 35th Street would be maintained, although in a slightly different configuration. Currently, the ramps are fairly close to 35th Street, but the westbound I-94 ramps do not begin or end at 35th Street. The westbound off ramp terminates at 34th Street and the on ramp begins at 36th Street. The current eastbound ramps directly connect with 35th Street for exiting and entering the freeway. Under the Modernization Alternatives, travelers would have to exit earlier in comparison to existing conditions, but all ramps would lead directly to 35th Street. This would consolidate access at 35th Street and give more certainty for travelers in terms of finding their way in and out of the neighborhoods to the north and south of the freeway. It is expected that travelers would quickly become accustomed to the new interchange ramps and would be able to follow freeway signage. As a result, it is the study team's determination that the ramp modifications would not adversely affect local land use and development patterns and would continue to facilitate planned development and revitalization efforts. (See Section 2.2.2.2 for information about development trends in the Layton Boulevard West neighborhood.)

A previous interchange option showed 35th Street being closed, which was very concerning to the Layton Boulevard West neighborhood and Marquette University High School. But, no concerns have been raised by local stakeholders regarding the proposed full access interchange configuration.

Travelers originating from US 41/Miller Park Way would not be able to exit at 35th Street via I-94. The study determined, no land use effects are anticipated because US 41 serves mostly local traffic, which would be able to access 35th Street from nearby local arterials. The study team's determination is supported by local stakeholder input that stated the local street network was adequate to handle these traffic movements.

27th Street Interchange

The existing on and off ramps in this area serve the Avenues West neighborhood to the north and the Menomonee Valley, Layton Boulevard West, Clarke Square and Muskego Way neighborhoods to the south. The Off-Alignment alternative would reconstruct the 27th Street interchange so that all ramps directly connect to 27th Street, a state highway (WIS 57). This would make the interchange easier for motorists to navigate. It would change access to the Menomonee Valley as motorists would be required to make two right turns (St. Paul Avenue and 25th Street) to access the Menomonee Valley. The On-alignment alternative would maintain the existing ramp alignment in the interchange, where no ramps connect to 27th Street. The I-94 westbound exit ramps is at 25th Street, the I-94 westbound entrance ramp is at 28th Street, the I-94 eastbound exit ramp is at 26th Street, and the I-94 eastbound entrance ramp is at 25th Street.

Consolidating access at 27th Street would likely help facilitate redevelopment plans along the 27th Street corridor to the north of the freeway, which would benefit environmental justice populations in that area. As documented in Section2.2.2.2, the Avenues West Association has been working to revitalize the 27th Street commercial corridor, and convenient access to the freeway is considered essential to their efforts. The potential for induced development would be moderated by the currently distressed economic conditions of the area. Per stakeholder input and census data, the 27th Street commercial corridor in the Avenues West neighborhood has a high rate of vacancies, and the surrounding neighborhoods have a high rate of poverty, which makes attracting reinvestment and redevelopment more challenging.

Some businesses in the Menomonee Valley are concerned that the consolidated 27th Street interchange under the Off-Alignment alternative would hinder business development because it would remove the 25th Street ramp and introduce extra turning movements for customers and freight trucks coming from the east. The Potawatomi Bingo Casino is particularly concerned about losing the 25th Street ramp because access to the Valley at 13th Street can be block by freight trains.

It is the project team's position that the consolidation of the 27th Street interchange would not create a substantial negative land use or economic development effect because access to Menomonee Valley destinations would be retained. Also, businesses located within the Menomonee Valley are destination businesses, not highway-serving businesses like gas stations or fast-food restaurants, which rely on impulse stops for a large portion of their business. In addition, consolidating access at 27th Street would simplify access in the area, which may give business patrons in the Menomonee Valley more predictability in terms of finding their way in and out of the Menomonee Valley.

Both Modernization Alternatives (On-Alignment and Off-Alignment) are not expected to affect neighborhoods to the south of the Menomonee Valley including the Layton Boulevard West, Clarke Square and Muskego Way neighborhoods. Under both Modernization Alternatives these neighborhoods would maintain freeway access via the 27th Street viaduct. A consolidated interchange at 27th Street may have a slightly more positive benefit for these neighborhoods because it would simplify freeway access and make access easier for residents and visitors to these neighborhoods.

No-Build Alternative and Interchanges

Under the No-Build Alternative, the interchange configurations would remain in their existing configurations. This would avoid negative land use and economic development effects that could result from complete or partial

closure of the Hawley Road interchange under the At-Grade alternative. The No-Build Alternative would also maintain the existing freeway exit ramp that connects to 25th Street that is important to businesses in the Menomonee Valley. In addition, the No-Build Alternative would maintain existing ramp lengths and would not make access less direct by utilizing C-D roads under the Double Deck alternative and braided ramps under both Modernization Alternatives for the East Segment.

It is the study team's determination that interchange configurations under the No-Build Alternative could diminish the overall economic development potential of the primary study area over time because the No-Build Alternative would not make safety and traffic operation improvements to the interchanges. Many stakeholders including local real estate developers stated having safe access from the freeway to local business destinations was very important to facilitating planned redevelopment within the primary study area.

2.4.2 Encroachment-Alteration Effects

These types of indirect effects are from alterations to the behavior and function of the physical environment farther from the corridor and later in time. Encroachment-alteration effects are often associated with direct project impacts that alter neighborhood quality of life; the vitality of business districts; and the quality of natural resources. Stakeholders have expressed concerns about property acquisition, business relocation, noise, air quality, visual and infrastructure proximity impacts, and how those impacts could affect the quality of neighborhoods, business corridors and natural resources beyond the project's footprint over time.

2.4.2.1 Neighborhood Encroachment Effects

Modernization Alternatives

The West Segment presents the greatest likelihood for neighborhood encroachment-alteration effects due to the combination of neighborhoods located on both the north and south sides of the freeway and the proposed features of the Modernization Alternatives for this segment. Neighborhoods adjacent to the West Segment include Johnsons Woods, Bluemound Heights and Story Hill. See Exhibit 13 for neighborhood locations.

The proposed Modernization Alternatives would have some residential acquisitions and would have a wider footprint compared with existing conditions, moving the freeway closer to adjacent neighborhoods. Also, depending on the alternative, the freeway would be at a higher elevation compared with existing conditions, creating a visual impact. In addition, there is an existing noise impact as well as an anticipated noise impact under both Modernization Alternatives, a discussed in EIS Section 3.20, Noise. These direct project impacts could diminish the quality of life in adjacent neighborhoods and make them more susceptible to urban decline if people relocate from the neighborhoods. The following paragraphs discuss the different neighborhood effects that may occur as a result of the Modernization Alternatives.

Encroachment-alteration effects under the At-Grade alternative on the West Segment would be minimized along the mainline of the freeway because it has a smaller footprint; it reconstructs the freeway at-grade; and it would have the least residential acquisitions (four). However, other aspects of this alternative not associated with the mainline could affect neighborhood quality of life. Local arterials serving neighborhood areas would experience more traffic under the At-Grade alternative because less traffic is expected to divert to the freeway as a result of congestion that may occur along the narrow freeway segment through the cemetery. (EIS Section 3.3, Transportation Service, discusses why narrow lanes lead to a reduced LOS for traffic.) Also, the At-Grade alternative would either close all I-94 interchange ramps at Hawley Road or provide partial access to and from the west. As discussed in Section of this report, a reduction in access at Hawley Road would diminish economic development potential in West Allis and would make access to some residential areas less convenient. The closure or partial closure of Hawley Road interchange would also shift traffic to other local arterials such as 70th Street, 68th Street, Bluemound Road, Greenfield Avenue, National Avenue and Miller Park Way. Many of these roads are already congested during peak travel periods, and according to local stakeholders, congestion along these routes diminishes neighborhood quality of life.

The Double Deck alternative on the West Segment would have the greatest potential for neighborhood encroachment-alteration effects along the mainline. This alternative would require the acquisition of 10 residences (mostly on the south side of I-94 and near the Hawley Road interchange) and would have the widest footprint west of the cemeteries. Also, the Double Deck alternative would be at a higher grade compared with the existing freeway corridor. The top of the crash barriers of the elevated portion of the Double Deck alternative would be as high as 30 feet above adjacent grade for the All Up option, and the elevated ramps would range from 0 feet to 30 feet (to the top of the crash barriers) above adjacent grade. As discussed in EIS Section 3.10, Visual Character/Aesthetics, the Double Deck alternative west of Hawley Road would change the visual setting of the surrounding area due to the greater width and taller bridges associated with the Double Deck alternative compared to existing I-94, it would be seen over a greater area than existing I-94.

The elevated structures associated with the Double Deck alternative and some of the elevated ramps associated with the Stadium Interchange have generated the most concern in adjacent neighborhoods, particularly the Story Hill neighborhood. This potential effect was discussed by local stakeholders, including a letter submitted by the Story Hill Neighborhood Association dated June 4, 2013, which states the height of the Double Deck freeway section would have negative effects on the neighborhood character. As discussed in EIS Section 3.24, Historical Properties, WisDOT and FHWA have determined that the visual impacts of the All Up and Partially Down options for the Double Deck alternative would have an adverse effect on the Story Hill Residential Historic Districts 2 and 3. (See Section 2.4.2.4 of this report for historic resource discussion.)

Some aspects of the Double Deck alternative may benefit primary study area neighborhoods. For example, freeway traffic operations under the Double Deck alternative are expected to be better compared with the At-Grade alternative because more traffic would be diverted from local arterials to the freeway. Also, the Hawley Road interchange would be reconstructed as a full-access interchange under this alternative. This would maintain access to adjacent neighborhoods and business districts and it would not shift traffic to other local arterials that already experience congestion during peak travel periods.

The study team determined that the magnitude of neighborhood encroachment effects would be moderated by several factors: The neighborhoods adjacent to the West Segment are some of the City of Milwaukee's more stable, middle-class neighborhoods that have relatively lower poverty rates, higher home ownership rates and fairly stable population figures. The attributes that make these neighborhoods desirable places to live – central locations, close proximities to downtown, historic architecture and compact walkable neighborhoods – would not be changed by the Modernization Alternatives.

No-Build Alternative

The No-Build Alternative would not create the potential for neighborhood encroachment effects beyond existing conditions because no property acquisitions would be required, and potential visual impacts associated with some of the Modernization Alternatives would not occur. However, the increasing congestion on the freeway would continue to raise air pollution emissions, as would stop-and-go traffic that diverts to local streets to avoid congested freeway conditions. Also, traffic that diverts to local arterials to avoid congestion on the freeway would continue to increase over time under the No-Build Alternative. This affects neighborhood quality of life by creating more conflicts between pedestrians and vehicles and diminishing the redevelopment potential of some neighborhood-oriented businesses. In addition, the No-Build Alternative would not present the opportunity to construct noise barriers. According to EIS Section 3.20, Noise, there is an existing noise impact as well as a noise impact with both Modernization Alternatives. Some residential areas to the north and south of the freeway on the East and West Segments would be eligible for noise barrier construction under the Modernization Alternative.

2.4.2.2 Business Encroachment Effects

Modernization Alternatives

The Off-Alignment alternative on the East Segment is likely to result in business encroachment-alteration effects to the south of the freeway in the Menomonee Valley. Under the Off-Alignment alternative, I-94 would be rebuilt

several hundred feet south of the existing alignment in the area between 27th and 25th streets to straighten the freeway mainline.

As documented at the June 6, 2013, focus group meeting, stakeholders indicated the proposed bridge would create a perceived barrier to the entrance of the Menomonee Valley and could create a blighting influence on adjacent lands over time (similar to other elevated freeway bridges in the Milwaukee area such as the I-794 bridges between downtown and the Third Ward). The realignment of I-94 could create areas of undevelopable land that could attract nuisance activities such as car break-ins, graffiti and litter. According to Menomonee Valley stakeholders, small pockets of existing remnant parcels next to the freeway between 27th and 25th streets are already prone to nuisance activities. For these reasons, the study team determined the Off-Alignment alternative could hinder the redevelopment potential of the Menomonee Valley, particularly parcels along the St. Paul Avenue corridor. According to the Menomonee Valley plan update that is under way, the St. Paul Avenue corridor and the adjacent riverfront properties have been identified as one of the next areas on which the city and the Menomonee Valley Partners will focus redevelopment efforts.

In addition, the Off-Alignment alternative would go through or over some potential future redevelopment sites such as the former Wisconsin Department of Motor Vehicles site, potentially reducing future employment opportunities within the Menomonee Valley. According to Menomonee Valley stakeholders, the businesses in the area provide job opportunities for residents in neighborhoods that are north and south of the Menomonee Valley. As a result, preserving and creating job opportunities in the Menomonee Valley is important because it provides jobs in close proximity to environmental justice populations that often rely on walking, biking and transit as a means to get to work.

Under the At-Grade alternative on the West Segment, the Hawley Road interchange would be closed or only partial access would be provide to and from the west. As discussed previously in Section 2.4.1.2, this would have negative effects to existing and planned development along the 60th Street corridor in West Allis such as the Renaissance Fair office building. The loss of access in this area could result in businesses moving out of the area, which would potentially cause blighting conditions from underutilized or vacant buildings.

No-Build Alternative

Business encroachment effects under the No-Build Alternative would not occur because the freeway would not be realigned and the proposed new bridge structure under the Off-Alignment alternative would not be built. Also, all access ramps at the Hawley Road interchange would remain in place.

2.4.2.3 Natural Resource Encroachment Effects

Modernization Alternatives

Under the Modernization Alternatives, there would be more stormwater runoff because I-94 would have more pavement area due to an additional travel lane, wider shoulders in some locations, and longer on- and off-ramps. As discussed in EIS Section 3.11, Surface Water and Fishery, the increase in impervious area for the I-94 East-West Corridor study area depends on the alternative and ranges from 11 percent to 22 percent for the West Segment and 67 percent to 91 percent for the East Segment. This could indirectly affect areas downstream from the Menomonee River by increasing the volume of stormwater runoff to the river. Several stakeholders stated stormwater management and flooding is an important consideration for the primary study area since some areas are already susceptible to flooding such as some areas of the Menomonee Valley.

No-Build Alternative

Under the No-Build Alternative, stormwater would continue to drain off the existing pavement and generally enter area waterways and ditches untreated. Water that drains off bridges would fall directly into waterways below. Few areas of I-94 and the local roadway system would have treatment techniques to remove suspended solids from stormwater runoff. Less stormwater would drain off I-94 and the local roadway system into the Menomonee River under this alternative compared to the Modernization Alternatives, but the level of pollutants would be higher.

2.4.2.4 Historic Resource Encroachment Effects

Modernization Alternatives

Four historic properties are located within close proximity to the I-94 East-West corridor. They include the following listed and eligible properties:

- Northwestern Branch of the National Home for Disabled Volunteer Soldiers (now the Clement J. Zablocki VA Medical Center) (National Historic Landmark) – listed in the NRHP
- Soldier's Home Reef (National Historic Landmark) – Listed in the NRHP
- Story Hill Residential Historic Districts 1, 2 and 3 – Eligible for listing in the NRHP
- Calvary Cemetery – Eligible for listing in the NRHP

As discussed in EIS Section 3.24, Historic Properties, no land would be acquired from any of the historic properties as part of the I-94 East-West Corridor project. Nonetheless, the Section 106 process has determined that some of the alternatives under consideration would have an adverse effect on the historic resources as follows:

- The Double Deck alternative would have an adverse effect on the soldiers' home National Historic Landmark because of its visual impact to the cemetery and because parts of the re-aligned Zablocki Drive would be on new alignment.
- The Double Deck Partial Down and All Up alternatives would have an adverse effect on Story Hill Residential Historic District 2 and 3 due to the intensity of the visual impact.
- The Double Deck alternative would have an adverse visual effect on Calvary Cemetery.

The encroachment impacts to the soldiers' home National Historic Landmark are not expected to cause substantial indirect effects that would lead to disinvestment of the property. The historic property would remain intact and the Modernization Alternatives would not alter the functioning of the site's primary use nor would it prohibit the functioning of special events.

As discussed in Section 2.4.2.1, indirect encroachment-alteration effects to the Story Hill neighborhood could make the neighborhood more susceptible to urban decline if people begin to move out of the neighborhood. However, the study team determined that the magnitude of this effect would be moderated by the fact that the Story Hill neighborhood would remain intact. Also, it is a stable middle class neighborhood that has a relatively low poverty rate, higher home ownership rate and fairly stable population figures. As discussed in Section 2.4.2.1, the attributes that make this neighborhood a desirable place to live such as a central location, close proximity to downtown, historic architecture and compact walkable neighborhoods would largely remain intact under the Modernization Alternatives.

No-Build Alternative

Under the No-Build Alternative, the freeway would remain in its current configuration and would not indirectly affect historic resources.

2.5 Step 6: Assess Consequences and Identify Mitigation Activities

Step 6 discusses the consequences of the indirect effects identified in Step 5 that may result from the Modernization Alternatives. It also includes a discussion about potential avoidance, minimization and mitigation measures that could be used by WisDOT and other agencies to minimize those effects.

2.5.1 Land Use Effects

As discussed in Section 2.4.1.1 above, the Modernization Alternatives are expected to reduce congestion along a locally and regionally important segment of I-94. Reduced congestion is expected to facilitate planned development within the primary study area and at the same time could facilitate some development in Waukesha

County. As discussed previously, the magnitude of these land use effects are not expected to be substantial because the primary and secondary study area's land use patterns have already developed around a mature transportation system, making it difficult to distinguish the role of the freeway from other factors that influence development. The consequences of these effects are discussed in more detail in the following subsections.

2.5.1.1 New Travel Lanes

Facilitates Primary Study Area Planned Development

As discussed in Section 2.4.1.1, the study team determined that improved mobility and travel time reliability along I-94 from new travel lanes would facilitate development within the primary study area because people and businesses would not be detracted from the area due to congestion. As a result, improved mobility would play a role in maintaining the economic competiveness of existing business districts and neighborhoods, encouraging redevelopment, improving the business environment along local arterials and supporting the vitality of numerous regional, cultural, recreational and entertainment venues. The magnitude of this effect would not be substantial because the primary study area is a fully developed urban area with established land use patterns that is connected to a mature transportation system composed of an extensive arterial network with numerous connections to the regional freeway system.

Consequences of the Effect

Based on stakeholder feedback, the study team determined that planned development that may be facilitated by the Modernization Alternatives would generally be seen as positive and would help implement land use plans and economic development goals within the primary study area. Planned redevelopment and neighborhood revitalization would increase local tax bases and help pay for the cost of public services that are already in place.

Redevelopment that could be facilitated by the Modernization Alternatives would also increase the availability of goods and services and employment opportunities within close proximity to a large population base in the primary study area. This could benefit minority and low-income populations because most businesses within the primary study area are accessible by local transit services and in some cases by walking and biking. Furthermore, redevelopment and infill development helps maintain the viability of existing urbanized areas and reduces the pressure to develop in outlying areas of the region.

Research has shown that local government development policies play a large role in facilitating development and are essential for positive indirect land use and economic development effects to occur. (Strategic Highway Research Program 2012) Many local, state and federal programs are available for local governments to encourage redevelopment efforts, business investment and neighborhood revitalization:

- TIF
- Business lending programs
- Site identification and selection services
- BIDs
- Façade grants
- Brownfield grant programs
- State and federal tax credit programs
- Small-business revolving loan funds
- Workforce development and training programs
- Neighborhood investment and housing rehabilitation programs

As discussed in Section 2.2.2.2, many of these tools are already being utilized by the local communities within the primary study area to create jobs and reuse lands that would otherwise be underutilized or vacant.

Development that may be facilitated by the Modernization Alternatives could also have some less desirable consequences. Redevelopment in the primary study area could increase the intensity of land uses in some areas, which could change local character, create additional traffic on local streets and increase the demand for on-street and off-street parking. If not managed appropriately, redevelopment could impact historic properties or alter the character of historic districts. In addition, induced development within the primary study area could increase impervious areas and create more stormwater runoff that increases the risk for flooding and affects water quality. Induced development could also affect natural resources like wetlands and animal habitat, but this consequence would be minimal in this urban area because most of the remaining natural resources in the county are owned by Milwaukee County and preserved in perpetuity.

Mitigation Measures

This section discusses potential mitigation measures that could be used to minimize or avoid negative effects associated with changes in the land use that may be influenced by the I-94 Modernization Alternatives. The mitigation measures are summarized in Table 23

The best way to manage any negative effects associated with induced development is through local land use and development policies that are under the jurisdiction of local governments. As documented in Section 2.2.2.2, municipalities in the primary study area are already using a number of tools to manage development within their communities. All communities within the primary study area have plan commissions, comprehensive planning documents and zoning regulations in place to direct the amount, type and density of all development within their communities. Most of the communities also have planning and economic development departments to manage development and implement local plans. In addition, most local governments within the primary study already take measures to protect properties that are historically significant to their communities. The cities of Milwaukee, West Allis, and Wauwatosa have historic preservation commissions to review plans and make recommendations prior to local approval.

To manage stormwater, all communities within the primary study area are part of the MMSD service area and are required to follow the MMSD Chapter 13 Surface Water and Storm Water Rules to control stormwater runoff and minimize the risk for flooding. MMSD's rules apply to any development that increases impervious surfaces by one-half acre or more. The rules also apply to redevelopment projects that disturb an area larger than one acre.

To further support local regulations and policies, state and federal regulations help manage impacts to natural resources such as wetlands (WDNR Chapter 30 permits and the Corps of Engineers Section 404 permits), water quality (NR 151), and threatened and endangered species (NR 27 and Endangered Species Act).

Table 23: Mitigation Measures for Primary Study Area Land Use Effects

Effect/Consequences	Mitigation Measures/Regulations	Responsible Agencies
Changes in land use intensity from induced development (changes to local character, increases in traffic and parking demand)	Comprehensive plans; sub-area plans; zoning regulations	City of Milwaukee; City of West Allis, City of Wauwatosa; Village of West Milwaukee
Historic resource effects from induced development	Historic preservation commissions	City of Milwaukee; City of West Allis, City of Wauwatosa; Village of West Milwaukee
Increased stormwater runoff from induced development	MMSD Chapter 13 Surface Water and Storm Water Rules; MMSD flood management projects	MMSD; City of Milwaukee; City of West Allis, City of Wauwatosa; Village of West Milwaukee

Effect/Consequences	Mitigation Measures/Regulations	Responsible Agencies
Natural resource effects from induced development	Local zoning; Milwaukee County ownership; WDNR Chapter 30 permits; water quality (NR 151); threatened and endangered species (NR 27 and Endangered Species Act); U.S. Army Corps of Engineers (USACE) Section 404 permits;	Local agencies: City of Milwaukee; City of West Allis, City of Wauwatosa; Village of West Milwaukee County agency: Milwaukee County State and federal agencies: Department of Natural Resources; USACE

Growth-Inducing Effects in Waukesha County

As discussed in Section 2.4.1.1, it is reasonable to assume that improved accessibility provided by the new travel lanes would support on-going development in Waukesha County because land use and transportation are inherently connected and local governments have policies and plans in place that support development. The magnitude of this effect is not expected to be substantial in comparison to existing conditions or in comparison to the anticipated development levels of the 2035 regional land use plan because the region has a mature transportation system that already has a high degree of accessibility and development has already spread to the urban fringe of western Waukesha County. As a result, the travel time savings that would result from adding new travel lanes to an existing freeway are not expected to be great enough to substantially change current land use pattern trends.

Consequences of the Effect

The primary concern raised by local stakeholders about development that may be facilitated by the Modernization Alternatives in Waukesha County is that it could increase the number of jobs that are not accessible by transit. A lack of transit access affects the ability of lower-income, transit-dependent populations in the City of Milwaukee to obtain employment and it helps create isolated neighborhoods with high concentrations of poverty. As discussed in Section 2.2.1.4, the primary study area had an individual poverty rate of 30 percent in 2010, which is substantially higher in comparison to Milwaukee County (19 percent) and Waukesha County (4.4 percent. Although the Modernization Alternatives are not expected to cause a substantial change in secondary study area land use trends, the study team recognizes that transportation and land use are inherently connected and that the low-density development patterns that have been prevalent in the United States (and in the Milwaukee metropolitan area) over the past 60 years have affected the ability to provide cost effective transit services (EPA 2013).[2]

The Milwaukee County Transit System (MCTS) provides good coverage to employment centers within Milwaukee County, providing access to 93 percent of Milwaukee County's employers with 500 or more employees (SEWRPC 2013). However, access to employment centers outside Milwaukee County is limited due to the lack of routes that cross the county line, unreasonable travel times (greater than 90 minutes) or transit schedules that are not coordinated with worker shifts. Plus, only one main connection point between MCTS and Waukesha Metro Transit is available at Brookfield Square Mall where the MCTS Route 10 meets Waukesha Metro Route 1. Also, the schedules of the freeway flyer routes operated by MCTS and Waukesha Metro Transit are oriented to bringing suburban workers to downtown Milwaukee and generally do not facilitate reverse commuting.

2 The EPA report, Our Built and Natural Environment, discusses how population and employment in the Unites States over the past 60 years has shifted outside central areas and spread-out across metropolitan areas. As a result, the growth in urbanized land area in the United States has increased 2.5 times faster than population growth between 1950 and 2010 (EPA 2013). This national trend has been more severe in older industrial cities like Milwaukee. Between 1950 and 2010, Milwaukee metro's land area growth (436 percent) increased at a substantially greater rate in comparison to its population growth (66 percent) (EPA 2013).

Furthermore, residents in the primary study area and Milwaukee County, in general, have fewer vehicles available and as a result are more likely to rely on transit to get to work. As discussed in Section 2.2.1.7, nearly 20 percent of the occupied housing units in the primary study do not have access to a vehicle. This is substantially higher in comparison to Milwaukee County (13 percent), Waukesha County (4 percent) and the Southeastern Wisconsin region (9 percent). As discussed in Section 2.2.1.6, over 7 percent of workers in the primary study area use public transit to get to work, which is higher in comparison to transit utilization percentages for Milwaukee County (6 percent), Waukesha County (1 percent) and the Southeastern Wisconsin region (3 percent).

Several research studies have documented the concerns surrounding transit access and workers in the Milwaukee area. A 2004 report titled, *Transportation Equity and Access to Jobs in Metropolitan Milwaukee*, identified a "spatial mismatch" between Milwaukee metropolitan's affordable housing supply in the City of Milwaukee and the availability of low-skilled jobs in adjacent suburban areas (Rast 2004). The report's research found that while 81 percent of families living below the poverty line are located in the City of Milwaukee, only 30 percent of businesses with strong hiring projections for entry-level workers are located in Milwaukee, and the remaining 70 percent are in the suburbs. (Rast 2004)

More recently, the Public Policy Forum published a related report called *Getting to Work: Opportunities and Obstacles to Improving Transit Service to Suburban Milwaukee Job Hubs*. (Peterangelo, Virginia and Henken 2013) The report examines the challenges associated with accessibility to the major employment centers (a concentration of at least 10,000 jobs) in Milwaukee, Waukesha, Washington and Ozaukee counties for workers in Milwaukee who do not have access to a vehicle for work trips. The report found that of the 29 job centers located within these counties, 15 have relatively high levels of public transit access (Milwaukee County), four are completely inaccessible by transit (Washington and Waukesha counties) and 10 are served by transit on a limited basis (all four counties).

Additionally, the SEWRPC 2035 regional housing plan found that 17 percent of households in the City of Milwaukee did not have access to a car in 2005-2009 and only 41 percent of employers (with 500 or more employees) in the region are accessible by local or rapid transit service (SEWRPC 2013). As a result, households in the City of Milwaukee that lack access to a car are not able to access the majority of employment centers in Waukesha County and the region.

The spatial mismatch is a complex issue and is also complicated by the lack of work force housing outside Milwaukee County. The SEWRPC 2035 regional housing plan analyzed the ratio of available jobs and housing in the region to determine if communities with a substantial amount of existing and/or planned employment also have existing or planned workforce housing (SEWRPC 2013). The SEWRPC analysis found a current and projected jobs/housing imbalance for many of Milwaukee's suburban communities. Municipalities such as Brookfield, New Berlin, Muskego and others were found to have a lower-cost job/housing imbalance and a moderate-cost job/housing imbalance. This means that these communities have both a higher percentage of lower-wage jobs than lower-cost housing and they have a higher percentage of moderate-wage jobs than moderate-cost housing. According to SEWRPC, a moderate-cost imbalance is the most common type of current and projected job/housing imbalance in the region and also tends to occur in suburban communities. See Appendix E for a SEWRPC map that shows the projected 2035 jobs/housing imbalance.

Local transit funding is another important factor affecting the ability of local transit services to provide access to suburban job locations. MCTS has four primary sources of revenue for its operations. In 2014, passenger fares accounted for 35 percent, the State of Wisconsin provided 43 percent, the federal government provided 11 percent and Milwaukee County property taxes contributed about 11 percent to operating revenues. (MCTS 2014) As discussed in the Public Policy Forum repot, *Milwaukee County's Transit Crisis*, public funding sources have not kept pace with growth in transit operating costs. (Henken, Horton and Schmidt 2008) The local share of funding public transit is largely provided by property taxes, which have to compete annually with funding for mandated services and projects. Increasingly, due to the constraints in property tax-based funding and shortfalls and fluctuations in federal and state funding, MCTS has found it difficult to provide funding to maintain current service levels and address transit needs beyond the county border. To address its fiscal challenges, MCTS has reduced

transit service levels, resulting in a 22 percent decline in total annual bus miles between 2000 and 2012. (Peterangelo, Virginia and Henken 2013) While service reductions have mostly involved reduced trip frequencies and shorter hours of service, several bus routes that once connected Milwaukee County residents with suburban job centers have been eliminated. (Peterangelo, Virginia and Henken 2013)

Funding for transit is further complicated by the fact that Wisconsin legislation limits WisDOT's ability to provide capital funding for transit outside traffic mitigation measures during construction projects. As stated in Section 85.062(2), Wisconsin Statutes, "No major transit capital improvement project may be constructed using any state transportation revenues unless the major transit capital improvement project is specifically enumerated under subsection (3)." In 2010, capital project revenue sources for MCTS were primarily funded by federal sources (80 percent) and from Milwaukee County (20 percent). (Gulotta-Connelly 2010)

Mitigation Measures

This section discusses potential mitigation measures that could be used to facilitate transit access to suburban job centers in Waukesha County. The mitigation measures are summarized in Table 24

Freeway Project-Related Measures. Because the provision and maintenance of transit services is under the jurisdiction of local governments in Wisconsin, WisDOT is not able to directly implement transit services. However, WisDOT has the ability to coordinate with local transit providers and select freeway reconstruction alternatives that could benefit transit or not preclude future transit options. For example, all of the I-94 Modernization Alternatives would benefit existing freeway flyer transit services that operate in freeway travel lanes as these services would benefit from improved traffic operations. Also, WisDOT could allow transit buses to operate in the freeway shoulders, which would improve transit service performance.[3] The Double Deck Modernization Alternative could accommodate future bus-on-shoulder transit options, while the At-Grade Modernization Alternative would not allow buses to operate in the shoulder due to the narrow segment through the cemetery. Implementation of bus-on-shoulder transit operations would require cooperation between WisDOT, a local government entity like Milwaukee County and/or Waukesha County and their designated transit service providers (MCTS and Waukesha Metro).

As part of the I-94 East-West corridor project, WisDOT has the ability to mitigate impacts to transit service during construction. These measures would be determined during subsequent design phases. Some examples of transit mitigation that have been used for other Southeastern Wisconsin freeway projects include:

- Providing a temporary park-and-ride lot during reconstruction of an existing park-and-ride lot.
- Providing funds to MCTS to add buses to fixed routes and freeway flyer routes to maintain headways during construction.
- Reimbursing MCTS on a per rider basis to provide free bus rides around closed roadways and/or bridges.

Regional Transit Implementation-Related Measures. According to SEWRPC, if the transit components of the 2035 regional transportation plan were implemented, many major employment centers that are not currently served by public transit would become accessible for people without access to a car, including those that work weekend hours and second and third shifts (SEWRPC 2013). The 2035 plan calls for a 100 percent increase in public transit from 2005 levels in terms of revenue-transit vehicle miles. The increase in public transit includes the development of rapid and express transit systems and substantial expansion of local bus systems where development density is sufficient to generate ridership (SEWRPC 2006).

3 An example of bus-on-shoulder transit is the I-55 Bus-On-Shoulder Demonstration Project in Illinois. The Pace suburban transit system utilizes the shoulders of I-55 to provide express bus service from the southwest suburbs to downtown Chicago. This allows the bus to avoid highway congestion and maintain reliable transit travel times. It is a joint effect between four agencies – 1) Regional Transportation Authority, 2) Illinois Department of Transportation, 3) Pace suburban bus, and 4) Illinois State Police. The demonstration project was funded by a CMAQ grant. Since shoulder operations began ridership increased significantly – from 40 to 137 daily passengers on Route 755 and from 281 to 451 daily passengers for Rout e 855.The on-time performance for the routes improved from 68 percent in 2011 to a range between 90-93 percent as of late 2012 (IDOT 2014).

SEWRPC is undergoing a review and update of the 2035 regional transportation plan. This review occurs every four years. According to the preliminary draft report, the amount of transit service in Southeastern Wisconsin as of 2012 has declined since the plan was adopted 2006, including a decrease of almost 7 percent in fixed-route bus service. The amount of transit service increase envisioned by 2012 in the 2035 plan was about 12 percent. (SEWRPC 2014)

Transit Funding-Related Measures. The transit expansion recommendations in the 2035 regional transportation plan were based on the assumption that state legislation would be passed to create a local dedicated transit funding source and that a renewal of adequate annual State financial assistance to transit would be provided as part of the State biennial budget. The plan also recognized that the transit plan would benefit from the creation of a regional transit authority (RTA). Most public transit systems nationwide have dedicated local funding, typically a sales tax of 0.25 percent to 1.0 percent, and are not nearly as dependent upon federal and state funding for operating assistance (SEWRPC 2006).

Attempts have been made at the State Legislature in recent years to establish dedicated transit funding and RTAs, but these attempts have failed to pass the Legislature. Between 2005 and 2011, state transit operating funding to Southeastern Wisconsin increased by 4 percent annually, federal transit operating funding increased about one percent and local transit operating funding decreased slightly (SEWRPC 2014). According to SEWRPC, without legislation for dedicated local transit funding or more substantial increases in state funding, the expansion of public transit service recommended in the regional plan may not be implemented, and existing transit service is likely to continue to decline.

MCTS has been obtaining federal grants to implement a system of express bus routes, known as Metro Express. The routes primarily serve destinations in Milwaukee County. In 2012, MCTS started the RedLine, BlueLine and GreenLine and are planning to initiate three more express routes in 2015 known as the 10X, 30X and 27X. These routes are largely funded by Congestion Mitigation and Air Quality Improvement program (CMAQ) grants, which only provide up to three years of funding for transit service. Once the grants run out, MCTS will need to find alternate sources of operational funds. Although these routes are mostly within Milwaukee County, they do lay the foundation for future extensions to employment centers in the suburban communities adjacent to Milwaukee County if funding and approvals can be obtained.

Housing-Related Measures. Consistency with the SEWRPC recommendations in the 2035 regional housing plan could help to address the existing and projected jobs/housing balance discussed above. The plan advises local governments with existing and planned employment land uses that have sewer services to conduct detailed analyses of their communities to confirm if an existing or planned job/housing imbalance exits. For communities that have a higher percentage of lower-wage jobs than lower-cost housing, new affordable multifamily housing developments are recommended. For communities with a higher percentage of moderate-wage jobs than moderate-cost housing, additional modest sized single-family homes on small lots would help to improve the imbalance. Progress towards achieving the recommendations in the SEWRPC Housing Plan is complicated by the fact that SEWRPC is an advisory agency. Local governments would need to make substantial changes to local land use plans and zoning regulations to increase the region's supply of housing that is available to workers.

Land Use-Related Measures. Local government consistency with the SEWRPC 2035 Regional Land Use Plan would help the region develop in a more compact manner that can support transit. The 2035 plan includes the following overall recommendations:

- Seek a centralized regional settlement pattern that moderates the current trend toward decentralized land development.
- Stabilize and revitalize urban centers, particularly the Milwaukee urbanized area.
- Encourage new development as infill in existing urban centers with defined growth emanating outward from the existing urban centers.

- Plan new urban development at densities that effectively support essential urban services including water, sewer, and public transit.
- Protect remaining primary environmental corridors from incompatible urban development, discourage urban development in secondary environmental corridors, and preserve prime agricultural lands.

Because land use is under the jurisdiction of local governments, the 2035 regional land use plan recommendations primarily need to be implemented by local governments in the region.

Table 24: Mitigation Measures for Secondary Study Area Land Use Effects

Effect/Consequences	Mitigation	Responsible Agency
Facilitate planned development in Waukesha County – Increases employment land uses in non-transit accessible locations in the region.	Freeway Project-Related Measures: Select freeway reconstruction alternatives that benefit transit service operations or that do not preclude future bus-on-shoulder transit operations; freeway construction mitigation for transit impacts	WisDOT
	Regional Transit Implementation-Related Measures: Implementation of the transit component of the 2035 regional transportation plan.	Local government entities (i.e. Milwaukee County and Waukesha County) and transit service providers (i.e. MCTS and Waukesha Metro)
	Transit Funding-Related Measures: implementation of local dedicated funding source; ongoing operational funding support	Dedicated funding: Wisconsin State Legislature would need to pass enabling legislation; local governments would need to approve Ongoing operation funds: Local, state and federal governments
	Housing-Related Measures: provide new affordable multifamily housing and additional modest sized single-family homes on small lots	Local governments in Milwaukee and Waukesha counties
	Land Use-Related Measures: consistency with the 2035 regional land use plan	Local governments in Milwaukee and Waukesha counties

2.5.1.2 Modifications to Interchange Access Points

As discussed previously in Section 2.4.1.2, the primary study area land uses have developed around the existing freeway access points and are important for the continued redevelopment of business areas and ongoing revitalization of neighborhoods within the primary study area. In most areas the Modernization Alternatives maintain the existing access points along the I-94 East-West project corridor and would continue to support neighborhood revitalization and planned redevelopment within the primary study area. In a few areas access is modified and or eliminated and it could result in some negative effects to development.

The following sections discuss the consequences of the effects and potential mitigation measures. This section focuses on the consequences of negative land use effects that may result from changes in interchange access. To learn about tools local governments can use to support positive land use effects that may result from maintaining and improving interchange access see Section 2.5.1.1 under Mitigation Measures for Facilitates Primary Study Area Planned Development.

Consequences of the Effect

The Modernization Alternatives maintain most of the existing access points along the I-94 East-West corridor and will continue to support local land use plans and ongoing neighborhood revitalization efforts. See Table 23 for mitigation measures that can be used to address any negative effects that may be associates with induced development in the primary study area.

In a few areas, the proposed modifications under the Modernization Alternatives would have negative land use effects. One area is near the Hawley Road interchange. Under the At-Grade alternative, freeway access at the Hawley Road interchange would be completely eliminated by the removal of all ramps or access would be reduced by a partial interchange that would only provide access to/from the west. The loss of access or partial access at Hawley Road would have negative land use effects to existing and planned development along the 60th Street corridor in West Allis such as the Renaissance Fair office building. The loss of access at this location would diminish the value of recent commercial developments and reduce the potential of future redevelopment and investment in this corridor. Ultimately, the area could become blighted if businesses choose to move out and go to another area with better freeway access. Lost employment in this area would also reduce the number of jobs that are transit accessible in Milwaukee County, which could affect environmental justice (low-income and minority) populations.

Another consequence of the Hawley Road closure or partial closure is that traffic on adjacent local arterials such as 68th Street, National Avenue, Miller Park Way, Wisconsin Avenue and Bluemound Road would increase. The increased traffic could diminish the business environments along these arterials by creating more conflicts between pedestrians and vehicles and increasing the potential for more vehicle collisions. Local stakeholders have expressed concerns that these corridors are already impacted by high traffic volumes and additional traffic congestion on local roads could discourage future business investment.

Some stakeholders have also expresses concern with changes to interchange access points that may make access less direct.

Mitigation Measures

This section discusses potential mitigation measures that could be used to minimize or avoid negative effects associated with changes land use changes that may result from modifications to access point along I-94. The mitigation measures are summarized in Table 25.

Indirect business impacts that may result from the complete closure or partial closure of the Hawley Road interchange could be minimized by improving the area's connectively to the local street network so that access to adjacent interchanges is more convenient for customers and tenants that utilize businesses within this area. Local road development is the responsibility of local governments and could be financed through capital improvement programs or TIF.

Increased traffic on local arterials that could result from the closure or partial closure of the Hawley Road interchange with I-94 would be mitigated to some extent by local arterial improvements that could be constructed as part of the project traffic mitigation plan during construction. These types of roadway improvements would be the responsibility of WisDOT and more detailed plans would be prepared during subsequent engineering phases of the project. See EIS Section 3.27, Construction, for more information about construction mitigation.

Signage along the freeway and local streets could also be used to help travelers find neighborhood and business destinations. The importance of signage has been mentioned by the City of West Allis if the Hawley Road interchange is eliminated. Also, the Menomonee Valley Partners have also stated that signage will be very important to direct Valley visitors to St. Paul Avenue if access at 27th Street is consolidated under the Off-Alignment alternative. Freeway signage would need to be approved by WisDOT and local wayfinding signage would need to be provided by local communities.

Table 25: Mitigation Measures Related to Modifications in Access Points

Access Point	Effect/Consequences	Mitigation	Responsible Agency
70th/68th interchange	Access would be slightly less direct under Double Deck alternative due to length of C-D roads, but overall would facilitate existing land use patterns	Maintain access at both 70th and 68th streets; provide freeway signage to direct travelers	WisDOT
Hawley Road interchange	Closure or partial closure under At-Grade alternative would diminish the economic development potential of the area; may cause urban blight if businesses move out and vacant buildings remain	Improve local street connectivity to adjacent interchanges through local capital improvement programming and TIF.	City of West Allis
		Upgrade local arterial streets and intersections as part of I-94 East-West construction traffic mitigation.	WisDOT
		Provide freeway signage	WisDOT
		Provide local wayfinding signage	City of West Allis
Zablocki Drive overpass	Facilitates existing land use patterns	Replace overpass and maintain separation from General Mitchell Boulevard	WisDOT
Mitchell Boulevard interchange	Facilitates existing land use patterns	Replace with overpass/underpass; Replace access with new embedded interchange at Stadium Interchange	WisDOT
Stadium Interchange	Facilitates existing land use patterns	Maintain traffic operations at an acceptable level of service through interchange; Avoid impacts to local service interchanges along US 41/Miller Park Way	WisDOT
New embedded interchange with Stadium Interchange	Facilitates existing land use patterns	Provide new local access point	WisDOT
35th Street interchange	Access would be slightly less direct under On-Alignment and Off-Alignment alternatives due to length of braided ramps, but overall would facilitate existing land use patterns	Maintain full local service interchange at 35th Street; consolidate all ramps with 35th Street	WisDOT
27th Street interchange	On-Alignment alternative; maintains access in current configuration - facilitates existing land use patterns	Maintain existing access points	WisDOT
	Off-Alignment alternative; consolidates access at 27th Street – facilitates planned redevelopment along 27th Street to the north of I-94; slightly less direct path to Menomonee Valley businesses, but overall would continue to facilitate existing land use patterns	Provide consolidated access point at 27th Street	WisDOT
		Provide freeway signage	WisDOT
		Provide local wayfinding signage	City of Milwaukee; Menomonee Valley Partners

2.5.2 Encroachment-Alteration Effects

The section discusses consequence and potential mitigation measures of encroachment alteration effects for neighborhoods, business districts, natural resources, and historic resources.

2.5.2.1 Neighborhood Encroachment Effects

Consequences of the Effect

As discussed in Section 2.4.2.1, the greatest likelihood for neighborhood encroachment-alteration effects would occur on the West Segment of the project corridor. Neighborhood encroachment-alteration effects could make the neighborhoods adjacent to I-94 more susceptible to urban decline if people begin to move out of the neighborhoods. Urban decline is often associated with diminished property values, lower home owner rates and increases in crime.

The neighborhood encroachment effects would be moderated by the fact that these neighborhoods are some of the City of Milwaukee's more stable, middle-class neighborhoods that have relatively lower poverty rates, higher home ownership rates and fairly stable population figures. The attributes that make these neighborhoods desirable places to live such as a central location, close proximity to downtown, historic architecture and compact walkable neighborhoods would not be changed by the Modernization Alternatives.

The Modernization Alternatives would reduce congestion along the freeway and minimize traffic that diverts to local streets. This would improve air quality by reducing idling and stop and go traffic. Also, it would improve safety on local streets by minimizing conflicts between pedestrians and vehicles especially on heavily traveled arterial corridors.

Mitigation Measures

Mitigation measures for neighborhood encroachment-alteration effects are summarized in Table 26.

Community sensitive solutions (CSS) efforts that would occur as part of future project phases would help to minimize the visual impacts resulting from a larger-scale freeway. Also, the Modernization Alternatives would present an opportunity to construct noise barriers that could improve the quality of life for residents in closest proximity to the freeway. According to EIS Section 3.20, Noise, there is an existing noise impact as well as a noise impact with both Modernization Alternatives.

Local governments in the primary study area are already taking measures to improve neighborhood environments. For example, the City of Milwaukee has various neighborhood investment and housing rehabilitation programs. The city uses a Target Investment Neighborhood (TIN) strategy to concentrate available housing resources in targeted areas for threes to improve owner-occupancy rates and improve affordable rental housing. The primary study area has two TINs – Burnham-Layton and Merrill Park neighborhoods. Furthermore, the continued presence of neighborhood associations in the primary study area would help maintain a stable and cohesive neighborhood environment.

Table 26: Mitigation Measures for Neighborhood Encroachment-Alteration Effects

Effect/Consequences	Mitigation	Responsible Agency
Expansion of freeway infrastructure could cause urban neighborhood decline.	Community sensitive solutions	WisDOT
	Construction of noise barriers	WisDOT
	Ongoing use of neighborhood improvement programs such as TINs.	City of Milwaukee
	Continued presence of neighborhood associations to provide communications with residents	Community-based organizations and neighborhood associations

2.5.2.2 Business Encroachment Effects

Consequences of the Effect

Realigning I-94 on the East Segment under the Off-Alignment alternative could diminish the future development potential of the St. Paul Avenue corridor and would eliminate some future redevelopment sites in this area. According to Menomonee Valley stakeholders, the businesses in the area provide job opportunities for residents in neighborhoods that are north and south of the Menomonee Valley. Preserving and creating job opportunities in the Menomonee Valley is important because it provides jobs in close proximity to environmental justice populations that more often rely on walking, biking and transit as a means to get to work. In addition, land that would be vacated by the existing freeway alignment may not be developable due to the difficult grade changes in the area. This would result in vacant land that could attract nuisance activities and make it more challenging to redevelopment the St. Paul Avenue corridor. The encroachment of infrastructure under the Menomonee Valley Partners has also stated that the Off-Alignment alternative could impact the character of the Valley by creating

Mitigation Measures

Mitigation measures for business encroachment-alteration effects are summarized in Table 27.

Community sensitive solutions undertaken by WisDOT as part of the I-94 East-West project could help minimize unavoidable impacts as a result of the proposed bridge structure that would be required to realign I-94 on the East Segment under the Off-Alignment alternative.

Table 27: Mitigation Measures for Business Encroachment-Alteration Effects

Effect/Consequences	Mitigation	Responsible Agency
Encroachment of freeway infrastructure could diminish the future redevelopment potential of the Menomonee Valley and create blighted parcels.	Community sensitive solutions	WisDOT
	On-going redevelopment efforts and planning including local land use/economic development plans; redevelopment plans; TIF; business tax credit programs; BIDs	City of Milwaukee, Menomonee Valley Partners

Ongoing redevelopment efforts undertaken by the City of Milwaukee, the Menomonee Valley Partners and private land owners would continue to strengthen this business district. The City of Milwaukee is already using several economic development tools including business tax credit programs, TIF and BIDs. In addition, the city and the Menomonee Valley have partnered to prepare an updated Menomonee Valley plan that includes a focus on redevelopment strategies for St. Paul Avenue and the river corridor.

2.5.2.3 Natural Resource Encroachment Effects

Consequences of the Effect

Increases in stormwater runoff as a result of the Modernization Alternatives could indirectly affect the Menomonee River. As discussed in EIS Section 3.12, Surface Water and Fishery, increases in runoff volumes in highly developed areas like the primary study area contribute to frequent and more severe flooding problems. Additionally, this runoff picks up a variety of pollutants from the surrounding landscape and carries it to the stream. Even small storms in highly developed areas can produce dramatic “pulses” of high flows and pollutant loads. Because these high flow pulses occur on a more or less regular basis, they can lead to stream channel erosion, bank instability, pollutant related toxicity to aquatic organisms and washout of aquatic organisms that live in the stream upon which fish feed. For these reasons, the Milwaukee Metropolitan Sewerage District (MMSD) and other stakeholders have stated a concern over increases in impervious surface area from the I-94 East-West project as it relates to increased stormwater runoff within the immediate project area and downstream.

Mitigation Measures

Mitigation measures for natural resource encroachment-alteration effects are summarized in Table 28.

WisDOT and FHWA are investigating retention/detention basins to manage stormwater from the Modernization Alternatives. The retention/detention ponds would also improve water quality by allowing solid pollutants (sand, grit, etc.) to settle out of the water before it flows into storm sewers or streams. Also, WisDOT and FHWA are evaluating the use of best management practices to reduce the level of pollutants in stormwater runoff and provide an opportunity to bring I-94 and the local roadway system in compliance with Wisconsin's stormwater management regulations. See EIS Section 3.12, Surface Water and Fishery, for more information.

As discussed in Section 2.5.1.1, induced development within the primary study area could increase impervious areas and create more stormwater runoff that increases the risk for flooding and affects water quality. This consequence of development would be managed by local stormwater regulations. All communities within the primary study area are part of the MMSD service area and are required to follow the MMSD Chapter 13 Surface Water and Storm Water Rules to control stormwater runoff and minimize the risk for flooding. MMSD's rules apply to any development that increases impervious surfaces by one-half acre or more. The rules also apply to redevelopment projects that disturb an area larger than one acre.

Table 28: Mitigation Measures for Natural Resource Encroachment-Alteration Effects

Effect/Consequences	Mitigation	Responsible Agency
Increased stormwater runoff from the freeway could contribute to more frequent and severe flooding events downstream	Implement best management practices for freeway	WisDOT
	Meet requirements of NR 216	WDNR/Local communities for non-WisDOT projects WisDOT through Trans 401
	Adhere to WisDOT/WDNR Cooperative Agreement (Memorandum of Understanding on Erosion Control and Stormwater Management)	WisDOT

2.5.2.4 Historic Resource Encroachment Effects

Consequences of the Effect

As discussed in Section 2.4.2.4, the Double Deck alternative would have an adverse effect to the soldiers' home National Historic Landmark and Story Hill Residential District 2 and 3. Since these resources would remain intact, impacts are not expected to have substantial indirect effects that would affect the functioning of the National Historic Landmark or cause the Story Hill neighborhood to experience severe urban decline.

Mitigation Measures

As discussed in EIS Section 3.24, FHWA and WisDOT will develop mitigation measures as part of the Section 106 consultation process. Potential mitigation measures include the following:

- For Calvary Cemetery and Story Hill Residential District 2 and 3, visual screening that minimizes the view of the freeway is a potential mitigation measure. The Story Hill neighborhood is eligible for noise mitigation under WisDOT's noise policy. However as discussed with consulting parties, a noise wall may be considered an adverse effect on the residential district. Whether a noise wall will be built will be determined during the project's design phase.
- For the soldiers' home National Historic Landmark, WisDOT, FHWA and the consulting parties may establish an endowment fund that could be used for improvements within the NHL, such as rehabilitating contributing buildings, several of which are in poor condition.

Additional potential mitigation measure will be developed during the Section 106 consultation process.

3 CUMULATIVE EFFECTS

The CEQ defines cumulative effects as "*the impacts on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time* (40 CFR § 1508.7)."

The cumulative effects analysis considers the resources that could be affected directly or indirectly by the I-94 East-West Corridor Study alternatives when combined with other actions that potentially affect the same resources. Disturbances to resources from highway improvements or land use changes may impact an area's hydrology, habitat quality and species diversity. Impacts may also affect human communities by causing changes in traffic patterns, aesthetics, and housing and employment patterns.

The methodology used to assess cumulative effects for the I-94 East-West Corridor Study is based on the CEQ's 11-step process identified in the handbook titled *Considering Cumulative Effects under the National Environmental Policy Act*, January 1997 (Council on Environmental Quality 1997), and WisDOT's *Guidance for Conducting a Cumulative Effects Analysis* (WisDOT 2007). The process's 11 steps were organized into the following three main steps: scoping, describing the affected environment, and determining the environmental consequences.

Section 3.1 describes the cumulative effects scoping process, and Section 3.2 describes the affected environment and environmental consequences for each resource.

3.1 Step 1: Scoping Cumulative Effects

The scoping phase of the cumulative effects analysis included identifying cumulative effects issues; establishing a geographic scope and timeframe for the analysis; and identifying other actions affecting resources, ecosystems and human communities of concern.

3.1.1 Cumulative Effects Issues

As discussed in WisDOT and CEQ guidance, the cumulative effects analysis should consider resources that may be directly or indirectly affected by the project, focusing on the most important cumulative effects issues. To determine the resources that would be evaluated in the cumulative effects section, the study team reviewed the direct and indirect effects in EIS Section 3, considered stakeholder input described in Section 2.1.2 and considered the demographic, land use, and natural, recreational and historic resources information discussed in Section 2.2. Table 29 summarizes the resources evaluated for cumulative effects and lists the corresponding section in the EIS.

Table 29: Evaluated Resource Areas and Corresponding EIS Section

Resource	Reference in EIS
Environmental corridors and stream crossings	EIS Section 3.12; Environmental Corridors and Natural Areas
Surface water quality and quantity	EIS Section 3.11; Surface Water and Fishery
Business areas	EIS Section 3.6; Commercial and Industrial Development
Neighborhoods	EIS Section 3.5; Residential Development and Section 3.8; Socioeconomic Characteristics
Municipal tax base	EIS Section 3.8; Socioeconomic Characteristics
Historical properties	EIS Section 3.24; Historical Properties
Regional land use patterns	EIS Section 3.28, Indirect and Cumulative Effects; ICE Section 2, Indirect Effects Analysis

Resource	Reference in EIS
Air quality*	EIS Section 3.20, Air Quality
Construction impacts	EIS Section 3.27; Construction

** Air quality was included in cumulative effects discussion because air quality concerns have been raised by the public as a resource of concern. Based on the air quality analyses completed for the proposed improvements, the I-94 East-West corridor project will not contribute to any violation of the NAAQS. MSAT emissions will decrease with any of the Modernization Alternatives, and neither carbon monoxide nor $PM_{2.5}$ levels will exceed the air quality standards.*

3.1.2 Cumulative Effects Study Area

The study area for cumulative effects varies depending on the resource being discussed; the study areas for the direct and indirect effects of the project also are considered. The resource study areas are based on the scale of human communities, watersheds and airsheds, as these boundaries consider the distance at which cumulative effects of past, present and reasonably foreseeable actions listed in Table 31 could occur. Table 30 shows the cumulative effects study area for each evaluated resource.

Table 30: Cumulative Effects Study Areas by Resource

Resource	Study Area	Basis for Study Area
Environmental corridors and stream crossings	Milwaukee County	Accounts for locations where resources have the highest likelihood to experience direct and indirect effects.
Surface water quality and quantity	The portion of the Menomonee River watershed in Milwaukee County	Water quality and quantity at any specific location are influenced by activities within the entire watershed. Water resources are subject to the urbanized nature of Milwaukee County.
Business areas	Milwaukee County	Accounts for potential effects of the I-94 East-West corridor, other freeway reconstruction projects and economic trends in Milwaukee County.
Neighborhoods	Milwaukee County	Accounts for potential effects of the I-94 East-West corridor, other freeway reconstruction projects and residential trends in Milwaukee County.
Municipal Tax Base	Milwaukee County	Based on study areas for business areas and neighborhoods noted above and other freeway reconstruction projects.
Historical Properties	Milwaukee County	Accounts for potential effects of the I-94 East-West corridor, other freeway reconstruction projects and ongoing redevelopment trends in Milwaukee County.
Regional land use patterns	Milwaukee and Waukesha counties	Includes the primary and secondary indirect effects study areas. Accounts for potential effects of the I-94 East-West corridor, other freeway reconstruction projects in the two counties and ongoing local development trends. See Section 2.1.3 for more information about the primary and secondary study areas for land use effects.
Air quality	Southeast Wisconsin Region	Air quality at any specific location is influenced by activities at the regional level.
Construction impacts	Milwaukee County	Accounts for potential effects in the I-94 East-West corridor in combination with other ongoing construction potentially impacting health, access and economic activity

3.1.3 Timeframe for the Analysis

One of the goals of scoping is to determine a timeframe for the analysis. The CEQ guidance indicates that the analysis timeframe usually does not extend past the timeframe when project-specific effects drop below a level determined to be significant. But the analysis should also consider the project effects timeframe combined with other reasonably foreseeable actions within and beyond the project timeframe that could create a significant cumulative effect.

The timeframe for the analysis assumes a maximum of 20 years after construction, which is 2040. This coincides with the design year, but also reflects the availability of data. The benefit of this timeframe is that it typically is consistent with the planning horizons used for regional land use and transportation planning purposes. This timeframe is long enough for cumulative effects to unfold, but it is not so far into the future that the effects become too difficult for the study team to reasonably anticipate.

The study team determined sufficient data and plans are available to assess anticipated conditions in 2040. The current regional land use and transportation plan time horizons are 2035, which leaves a five-year gap. However, other resources are available to assess trends beyond the 2035 timeframe, which are listed in Section 2.1.4.

3.1.4 Identify Past, Present, and Reasonably Foreseeable Future Actions

Milwaukee County has historically been exposed to development as urbanization pushed westward from the core cities along the lakefront. As discussed in Section 2.2.2, the I-94 East-West corridor is characterized as a fully built out and established urban area. The area also supports numerous regional attractions and employment destinations. In general, communities in the study area are focusing on maintaining development, improving neighborhoods and redeveloping underutilized commercial and industrial areas.

Given the history of development around the project corridor and the ongoing redevelopment of former industrial areas, many past, present and reasonably foreseeable future actions may contribute to cumulative impacts within the cumulative effects study areas. Table 31 provides a list of other actions that, when considered in combination with the I-94 East-West corridor project, may have cumulative effects on the environment.

Table 31: List of Past, Present and Reasonably Foreseeable Future Actions

Timeframe	Action	Location	Description	Timeframe	Effects
Past	Historic urban/suburban development	Milwaukee and Waukesha counties	Development began in the Milwaukee area in the 1800s near Lake Michigan and the rivers. The city's early growth was spurred by industry, agriculture and an influx of European immigrants in the mid-1800s. After WWII, Milwaukee experienced suburbanization as many moved out of the central city to suburban communities and development has spread outwards. In 2010, the urbanized land area in Milwaukee and Waukesha counties was 92 percent and 49 percent, respectively **(U.S. Census Bureau 2014)**.	Starting in the 1800s	• Redistribution of population and employment • Natural resource depletion • Impacts to water quality; and floodplains • Increased travel by automobile: congestion and air pollution.
Past	VA campus and medical center	City of Milwaukee	The VA medical center in Milwaukee offers care to veterans in the surrounding area. The campus is located on the west side of Milwaukee near Miller Park. The VA's Wood National Cemetery is a National Historic Landmark.	First main building was completed in the 1860s. Hospital constructed in 1933, with other major additions in the 1960s.	• Provides essential services for human health • Natural resources impacted: local forestry resources removed for construction. • National Cemetery has constrained local developments • Ongoing maintenance of several historic properties
Past	Miller Park	City of Milwaukee	Replaced former ballpark, County Stadium. Construction costs were around $400 million, which was funded through a 0.1 percent increase in sales tax. This increase is estimated to end sometime between 2018 and 2020.	Opened 2001	• Increased tourism • Spurred nearby development of commercial and industrial uses. • Improved Menomonee River habitat • Improved access to business development in the Menomonee Valley

Timeframe	Action	Location	Description	Timeframe	Effects
Past	Original construction of US 45, I-94, I-794 and I-894	Milwaukee and Waukesha counties	US 45 runs north-south through the southeastern region, connecting to Highway 145 in the north and I-43 near Greenfield in the south. I-94 runs east-west through the region from downtown toward Madison. I-794 runs north-south along Lake Michigan. I-894 connects I-94 to I-43 near Greenfield.	US 45: 1930s I-94: Early 1960s I-794: 1970s I-894: 1960s	• Assisted the suburbanization of region. • Relocation of homes, businesses and historic properties • Loss of habitat • Noise impacts of freeway traffic on nearby areas • Water quality and quantity impacts • Air quality issues from automobile pollution
Past	Canal Street reconstruction	City of Milwaukee	Reconstruction of Canal Street between 6th Street and Miller Park Way in the Menomonee Valley.	Completed in 2006	• Improved access to Valley • Provided public infrastructure to support redevelopment • Improved stormwater management • Facilitated construction of Hank Aaron State Trail
Past	MMSD flood management projects and creek restorations	Milwaukee County	The MMSD has a variety of flood management projects in the region (i.e. Lincoln Creek, County Grounds, Hart Park, Menomonee River) including green infrastructure, levees, and water basins. These approaches along with creek restorations reduce the risk of flooding throughout the region.	Started in 1990s	• Reduced sewer overflows • Improved water quality • Reduced flood events • Improves fish habitat • Improves local community aesthetics and recreational opportunities • Requires some residential relocations
Past	Oak Creek power plant expansion	Milwaukee County	We Energies constructed an expansion of its Oak Creek coal-fired power plant that includes an emission-control system.	Operation began in 2010	• Regional air quality.

Timeframe	Action	Location	Description	Timeframe	Effects
Past	Redevelopment of former industrial areas	Milwaukee, West Allis, West Milwaukee and Wauwatosa	Beginning in the 1970s, deindustrialization in the area and competition from overseas led to a decline of the Milwaukee area's industry. Since then many industrial buildings and areas have been turned into retail locations, condos, and office parks.	Ongoing since 1980s	• Increase tax base from formerly empty buildings and vacant land • Increase jobs in transit service area • Increase local tax base • Reduces pressure to develop in outlying areas
Past	Marquette Interchange Reconstruction	City of Milwaukee	Reconstruction of major system interchange in downtown Milwaukee to accommodate future increases in traffic volume and replace aging and deteriorating infrastructure.	Completed in 2008	• Improved safety, access and traffic operations • Improved aesthetics with CSS • Property acquisitions
Past	Declining transit service levels	Milwaukee and Waukesha counties	Funding challenges has led to service reductions and increased fares, which has led to a decrease in ridership for MCTS and Waukesha Metro.	Starting in early 2000s	• Reduces transportation access for those without other options (low-income, disabled) • Increased reliance on private vehicle use and related air quality impacts
Past	MCTS Express Routes	Milwaukee County	MCTS launched three express bus routes: the Blue Line, Green Line and Red Line. These routes operate with fewer stops to improve the speed of the route and were largely funded through Federal Congestion Mitigation Air Quality grants.	Started in 2012	• Increased access to employers within Milwaukee County • Reduced private vehicle use and related benefit s to air quality

Timeframe	Action	Location	Description	Timeframe	Effects
Present	Reconstruction and widening of I-94 North-South corridor	Milwaukee, Racine and Kenosha counties	Reconstruction of major freeway corridor from the Illinois state line to the General Mitchell International Airport Interchange. An additional lane will be added in each direction, as well as replacing the deteriorating infrastructure.	Mitchell Interchange in Milwaukee County completed 2012; Kenosha/Racine segments to be completed by 2021	• Improved safety, access and traffic operations • Maintains economically important route between Milwaukee and Illinois • Improved aesthetics from CSS • Farm land impacts and residential and business displacements • Endangered species habitat impacts • Noise impacts from construction and increased traffic – provides opportunity for noise barriers • Construction traffic management
Present	Expansion of MCTS express bus routes	Milwaukee County	In 2014, Milwaukee County received CMAQ grants for new express bus services for the 10X, 30X and 27X. These new routes will generally follow existing routes, but with fewer stops and faster service.	Service to start in 2015	• Increased access to employers • Reduced private vehicle use and related air quality benefits
Present	Zoo Interchange freeway reconstruction	Milwaukee County	Reconstruction involves nine miles of freeway leading into and within the interchange. The interchange is being rebuilt because of its age and outdated design. The design allows for the addition of new travel lanes if needed in the future.	2012 to 2018	• Improved safety, access and traffic operations • Improved aesthetics from CSS • Business and residential relocations • Potential contaminated sites • Construction traffic management

Timeframe	Action	Location	Description	Timeframe	Effects
Present	I-794 Lake Interchange ramp modifications and associated local road improvements (Lakefront Gateway Project)	Downtown Milwaukee	Reconstruction of I-794 near the Lake Interchange and associated local road improvements. The project involves reconstructing the Lincoln Memorial Drive freeway ramps and the realignment of Lincoln Memorial Drive and other local roads through the project area.	Construction to begin 2015	• Improved safety, access and traffic operations • Improves local access • Opens up land for downtown development • Provides an improved gateway to the lakefront • Improves pedestrian connections
Present	Development of former Park East freeway corridor	Downtown Milwaukee	New public/private partnership to market vacant lands within the Park East corridor and streamline development review and site acquisition processes.	Started in 2014	• Increased local tax base • Increased connectivity within the area • Improved neighborhood cohesion • Increases jobs within transit service area • Implements City of Milwaukee land use plans
Present	Menomonee Valley redevelopment	City of Milwaukee	After the decline of Menomonee Valley, the valley was an abandoned area full of contaminated sites and empty buildings. In the late 1990s redevelopment efforts began for the area. In recent years the area has seen job and business growth.	Ongoing	• Increased tax base • Improved water quality and recreational amenities • Economic development and transit accessible jobs • Remediation of contaminated sites • Increased recreational amenities

Timeframe	Action	Location	Description	Timeframe	Effects
Present	MMSD flood management and fish passage projects	Menomonee River watershed	Replace concrete channel in the Menomonee River with a natural channel, which allows for fish passage and flood mitigation.	Ongoing	• Improved stormwater and flood management • Improve environmental corridor and water quality • Increase wildlife mobility • Increases recreational opportunities
Present	Valley Power Plant conversion	City of Milwaukee	We Energies is converting the power plant from coal to natural gas because the plant lacks modern pollution controls and would not be in compliance with rules that ratchet down emissions of mercury and other pollutants.	Beginning fall 2014	• Regional air quality improvements
Future	Lakefront gateway developments (residential high-rise and office buildings)	Downtown Milwaukee	The Lakefront Interchange redesign will open up space for development near the lakefront. The City of Milwaukee is taking steps including a TIF to plan for new development and pay for local infrastructure costs.	Ongoing after 2015	• Increased tax base • Increased jobs and potential residential housing units • Increased traffic and demand for parking
Future	Ongoing development in Waukesha County	Waukesha County	Waukesha County is expected to continue to see increased urban development in the future. Between 2010 and 2040, its projected to add 65,829 to its population (WDOA) and between 2010 and 2050 it is expected to add 69,500 jobs (SEWRPC)	2040 projected population and 2050 projected employment	• Residential and business development • Decreasing agricultural land • Decreasing natural resources
Future	Freeway reconstruction and potential widening of I-94 through Waukesha County	Waukesha County	The SEWRPC 2035 regional transportation plan recommends the reconstruction I-94 in Waukesha County including the addition of one new travel lane in each direction through WIS 16 for a total of eight lanes. The remainder of I-94 in Waukesha County would remain at six lanes.	Design and construction are not scheduled	• Potential property impacts and relocations • Potential loss of habitat and natural areas • Potential indirect land use changes • Improved safety, access and traffic operations

Timeframe	Action	Location	Description	Timeframe	Effects
Future	Freeway reconstruction and potential widening of US 45	Milwaukee, Waukesha and Washington counties	US 45 is in SEWRPC's 2035 plan for freeway reconstruction.	Construction not scheduled	• Potential property impacts and relocations • Potential loss of habitat and natural areas • Potential indirect land use changes • Improved safety, access and traffic operations
Future	Freeway reconstruction and widening of I-43	Milwaukee and Ozaukee counties	I-43 is in SEWRPC's 2035 plan for freeway reconstruction. Long-term planning and study are currently underway with no reconstruction plans yet.	Construction not scheduled	• Potential property impacts and relocations • Potential loss of habitat and natural areas • Potential indirect land use changes • Opportunity for improved stormwater management • Support Ozaukee County fish passage program
Future	MMSD Menomonee River restoration projects	Milwaukee County	In the future, MMSD has noted concern about the water quality within the Menomonee River. MMSD is currently investigating retention/detention ponds to help manage future increases in runoff.	Construction not scheduled	• Improved stormwater and flood management • Improved water quality • Potential impacts to tax base from property acquisition, depending on project location
Future	Redevelopment of Milwaukee Mile at State Fair Park	West Allis	Potential redevelopment of existing race track in the future. West Allis comprehensive plan envisions large-scale, high density commercial/mixed use development that would be a regional draw.	Construction not scheduled	• Increased tax base • Economic development and job creation; transit accessible jobs • Increased traffic • Potential environmental benefits from envisioned creek restoration

3.2 Describe the Affected Environment, and Determine the Environmental Consequences and Potential Mitigation Measures

This section describes the resources that could experience cumulative effects as a result of the I-94 East-West Modernization Alternatives and the other past, present and reasonably foreseeable actions listed in Table 31. For each resource, the affected environment is summarized first including an established baseline condition and the resources' capacity to withstand stress in relation to regulatory thresholds. Then, an evaluation of the environmental consequences is conducted for each resource. This includes examining the cause-and-effect relationship between human activities and affected resources, and determining the magnitude and significance of the cumulative effects. The evaluation also considers avoidance, minimization and mitigation measures WisDOT can undertake for the Modernization Alternatives to minimize cumulative effects to the greatest practical extent. It also considers other local, state and federal ordinances and laws that can further manage cumulative effects that result from the project's direct and potential indirect effects. The findings of the analysis are summarized by resource in the following sections.

3.2.1 Environmental Corridors and Stream Crossings

This section describes the potential cumulative effects to environmental corridors in Milwaukee County.

Affected Environment

The Menomonee River, which flows under I-94, is located in a primary environmental corridor. SEWRPC reports the environmental corridors are home to the most important elements of the natural resource base, including wetlands, woodlands, prairies, wildlife habitat and streams, as well as historic, recreational and scenic sites throughout the region. Primary environmental corridors are at least 400 acres in size, 2 miles long and 200 feet wide. Milwaukee County contains over 9,000 acres of primary environmental corridors, which is 5.8 percent of the county. The corridors typically follow stream valleys and surround major lakes and flood lands.

Historically, past land development has impacted natural resources throughout Milwaukee County. According to SEWRPC, nearly 83 percent of pre-European-settlement vegetation in Southeastern Wisconsin had been removed by 1990. (SEWRPC 1997) Past development has altered the Menomonee River corridor through removal of native vegetation and channelization, which in turn has led to soil erosion, increased stormwater runoff and flood flows and lost wildlife habitat.

In light of historical and planned development in Milwaukee County, the preservation of this resource base is especially important. SEWPRC reports that the preservation of environmental corridors reduces flooding and noise pollution; improves water quality; and reduces impacts to the man-made environment. Therefore, local municipalities seek to protect these resources from further encroachment through zoning and permitting regulations. In Milwaukee County, the majority of environmental corridors are publicly owned to ensure their preservation.

MMSD is in the process of removing 1,100 feet of a steep concrete bed in the Menomonee River north of Wisconsin Avenue and north of the I-94 study limits. The project will eliminate a barrier to fish and wildlife passage. Stream restoration will open up 17 miles of river, plus 20 miles of tributaries, which will allow fish to reach the Lepper Dam in Menomonee Falls. USACE is reviewing the feasibility of removing the remaining 3,700-foot section of concrete lining downstream of Wisconsin Avenue and 300 feet south of I-94. Redevelopment activities in the Menomonee Valley have also allowed restoration to occur along the riverfront through re-established natural banks and vegetation.

Environmental Consequences/Potential Mitigation

All Modernization Alternatives would maintain the one stream crossing of the Menomonee River; no new crossings would be created. The construction of new bridges for the reconstructed Stadium Interchange under the Modernization Alternatives would directly impact about 2 acres of environmental corridor along the Menomonee River. Design modifications have been made to minimize the impact, but no feasible solutions are available to

completely avoid the impact. As a result, the project, in combination with past, present and reasonably foreseeable future actions may cumulatively affect the Menomonee River environmental corridor.

SEWRPC's regional land use plan recommends long-term preservation of environmental corridors by limiting development within them to uses that are compatible with conservation such as transportation and utility facilities. Also, ongoing MMSD flood management and stream restoration activities would result in a positive cumulative effect that supports the environmental corridor functions. Thus, the likelihood of a cumulative effect to primary environmental corridors from other development actions would be limited. Other future transportation projects, such as the reconstruction of US 45, could potentially have similar impacts to the I-94 East-West Corridor Modernization Alternatives. Clear-spanning the Menomonee River can minimize the direct impact and cumulative effect of highway development in the environmental corridor.

Potential temporary effects from construction would be avoided and minimized by using WisDOT's *Standard Specifications for Road and Bridge Construction* (2009b) and complying with Wisconsin's Trans 401 regulations (State of Wisconsin 2013) that oversee construction-site erosion control and stormwater management. Local governments would continue to be responsible for regulating through land use policies, zoning, and permitting rules development that could affect environmental corridors. Potential measures to avoid and minimize impacts to environmental corridors are summarized in Table 32 below.

Table 32: Summary of Potential Cumulative Effect to Environmental Corridors and Mitigation measures

Effect	Mitigation	Responsible party
Freeway reconstruction projects that impact environmental corridors in combination with past and ongoing urban development in Milwaukee County could cumulatively effect the functioning of environmental corridors.	• Confine impacts to existing stream crossing. • Minimize construction footprint to greatest practicable extent. • Clear span corridor crossings to the extent practicable	WisDOT
	Long-term corridor preservation through regional planning efforts and local land use planning and zoning.	SEWRPC (regional long-range land use planning) Local communities (through local land use, zoning and permit regulations)
	Flood management and stream restoration projects within environmental corridors	MMSD
Construction-related erosion and related water quality impacts	Following WisDOT's *Standard Specifications for Road and Bridge Construction* (2009b) and meeting requirements of Wisconsin's TRANS 401 regulations	WisDOT

3.2.2 Surface Water Quality and Quantity

This section describes the potential cumulative effects to surface water quality and quantity within the Menomonee River watershed in Milwaukee County.

Affected Environment

The I-94 East-West corridor is located in the Menomonee River watershed. The watershed has 96 miles of rivers and streams, and it drains 136 square miles into Milwaukee, Ozaukee, Washington and Waukesha counties. Land cover within the watershed is primarily urban or suburban (52 percent) with substantial amounts of agriculture (22 percent) and open water and open space (14 percent) cover. The Menomonee River is 33 miles long and is a tributary to the Milwaukee River. The river originates in the Village of Germantown and the City of Mequon, and it

flows in a southeasterly direction before it meets the Milwaukee and Kinnickinnic rivers in the Milwaukee Harbor Estuary.

Water quality in the watershed has been affected by historic human activities, such as farming practices and urban development. Stormwater runoff from farm fields carry suspended solids from soil erosion, nutrients and pesticides to streams. Runoff from urban environments contains suspended solids from eroding stream banks and impervious surfaces like parking lots, buildings, streets and highways. Urban development is also the source of water pollutants such as fecal coliform bacteria, salts and nutrients. As a result of pollutant loads in the watershed, the Menomonee River is listed on the Wisconsin Department of Natural Resources (WWDNR) "Impaired Waters" list. It also has a Section 303(d) designation, which means that the water body does not meet federal Clean Water Act standards. The pollution types present include fecal coliform, unspecified metals, polychlorinated biphenyls (PCBs), total phosphorus, and E. coli. Recreational restrictions are in place due to pathogens, chronic aquatic toxicity, contaminated fish tissue, and low dissolved oxygen.

Sources of pollution are defined as either point or nonpoint sources of pollution. Point sources are pollutants that are discharged to surface waters at discrete locations. (SEWRPC 2007) Common sources of point source pollution include discharges from sewage treatment plants and industrial discharges. Nonpoint sources of pollution are discharges of pollutants to the surface waters, which cannot be readily identified as point sources of pollution. (SEWRPC 2007) Nonpoint sources enter surface waters via stormwater runoff from rural and urban land uses.

Point sources of pollution have been highly regulated for decades through the federal Clean Water Act and the National Pollutant Discharge Elimination System (NPDES). Regulations for nonpoint sources of pollution have been enacted more recently. The WDNR regulates runoff from nonpoint sources for urban and rural land uses through the performance standards for runoff management provided in NR 151 of the Wisconsin Administrative Code (State of Wisconsin 2013)

Throughout the Menomonee River watershed, point and nonpoint source pollution has degraded surface water quality. Table 33 presents estimated pollution loads for point and nonpoint sources to the Menomonee watershed. Given the dispersed nature of nonpoint sources of pollution, it has been difficult to control. As a result, nonpoint sources of pollution are the largest contributor of pollutants to the Menomonee River watershed. The Wisconsin Department of Natural Resources has identified urban nonpoint pollution as a key water quality concern in the Menomonee River watershed. Between 1970 and 2000, urban land use increased from 50.9 percent of the watershed to 63.8 percent. (WDNR 2010)

Table 33: Pollution Loads - Menomonee River Watershed

Pollution Type	Point*	Nonpoint**	Estimated Total
Biochemical oxygen demand	13.6	86.4	1,352,690 lbs/year
Total suspended solids	1.5	98.5	17,963,790 lbs/year
Fecal coliform bacteria	14.0	86.0	16,873 lbs/year
Phosphorus	37.7	62.3	53,120 lbs/year

Source: Water Quality Conditions and Sources of Pollution in the Greater Milwaukee Watersheds. Southeastern Wisconsin Regional Planning Commission. Technical Report No. 39
** Includes discharges from sewage treatment plants and separate sanitary sewer overflows and industrial discharges*
*** Includes urban and rural runoff*

The quantity of stormwater runoff is also a concern for Milwaukee County and the Menomonee River watershed. According to MMSD, depending on soil conditions, as much as 50 percent of rainfall can be absorbed directly into the ground in areas with low levels of development, with only about 10 percent of this water running off the land. In contrast, where the land has been extensively developed as in highly urbanized areas such as Milwaukee County, very little water is absorbed into the ground. Instead, more than half of the water runs off the land and across the hard, impervious surfaces of buildings, streets, highways and parking lots. According to MMSD, low-flow conditions can be equally as stressful, creating conditions of lower flow and higher water temperature extremes during dry periods. This occurs because rainfall sheds off the land too quickly in urbanized areas, not allowing rainwater time to replenish the groundwater flow to the stream in a slow, sustainable manner.

The amount of stormwater runoff from highways increases proportionately to the amount of impervious surface. Runoff from roadways can increase the amount of water in area streams above normally carried capacities. Stormwater that runs off of I-94 is collected in storm sewers. About half of the storm sewers eventually discharge to the Menomonee River. The east end of the project corridor, from roughly 35th Street through the eastern project limit is in MMSD's combined sewer service area. Stormwater collected in this area is directed to combined sewers, which flow to the sewage treatment plant, and is treated before discharging to Lake Michigan.

MMSD and its partners have been working to reduce flooding along the Menomonee River. Extensive flooding that occurred in Milwaukee County in 1997, 1998 and 2000 caused $96 million of damage to homes, businesses and neighborhoods (Milwaukee Metropolitan Sewerage District 2006). MMSD completed extensive work at the Milwaukee County Grounds to capture and store potential floodwater in one large basin that covers about 65 acres and holds 315 million gallons of water. A ½-mile-long underground tunnel that is 17 feet in diameter channels excess water from Underwood Creek into the basin. From there, the water will be slowly released into the Menomonee River, reducing the risk of flooding downstream (Milwaukee Metropolitan Sewerage District 2014). Also, MMSD completed the Hart Park project to reduce the risk of flooding in downtown Wauwatosa and downstream in Milwaukee along the Menomonee River.

MMSD is removing 1,100 feet of concrete from the bed of the Menomonee River north of Wisconsin Avenue and north of the I 94 project limits as of summer of 2014. This Menomonee River project will eliminate a barrier to fish passage between Lake Michigan and upstream stretches of the river. As part of the project, a 58-foot-wide concrete lining will be removed and restored with a more natural, meandering streambed, with rock riffles and pools in which fish can rest. Removal of the lining will also open 17 miles of the main river—through Wauwatosa to Lepper Dam at Mill Pond Park in Menomonee Falls—to fish migration ("MMSD to spend $3.98 million to remove Menomonee River concrete," Milwaukee Journal Sentinel, May 6, 2013).

The remaining 3,700-foot section of concrete lining downstream of Wisconsin Avenue and 300 feet south of I 94 is under feasibility review for removal by the Corps of Engineers under a Section 206 Aquatic Ecosystem Restoration Plan. If approved, it is anticipated that a cost-share agreement will be offered to MMSD for a future project.

Environmental Consequence/Potential Mitigation

Urban activities throughout the watershed in the project area also contribute to flooding events in the area. MMSD has stated its concern about the cumulative effect of increased impervious surface area within the Menomonee River watershed as it relates to increased stormwater runoff from freeway reconstruction in Milwaukee County. As shown in Table 34, and discussed in EIS Section 3.11, Surface Water and Fishery, the increase in impervious area for the I-94 East-West Corridor study area depends on the alternative and ranges from 11 percent to 22 percent for the West Segment and 67 percent to 91 percent for the East Segment. The increase in impervious area would have only a slight change in total impervious area for the Menomonee River watershed, increasing the watershed's impervious area by 0.32 percent to 0.44 percent. The impervious area within the Menomonee River watershed also would be increased by the following past, present and future freeway reconstruction projects: the Marquette Interchange (past,) the Zoo Interchange (current), US 45 north of the Zoo Interchange project (future) and I-94 in Waukesha County (future).

Table 34: Impervious Surface Increase for the Menomonee River Watershed

Area	Element	No-Build/ Existing Conditions	Modernization Alternatives
Total Menomonee River Watershed	Land area	87,040 acres	87,040 acres
	Impervious surface area	12,656 acres	12,696 to 12,712 acres
	Impervious surface	14.54%	14.59 to 14.60%
	Impervious surface area increase	0%	0.32 to 0.44%
I-94 East-West Project Corridor	I-94 impervious surface area	79.8 acres	120 to 136 acres
	I-94 impervious surface increase	0%	(West Segment) 11 to 22% (East Segment) 67 to 91%

Notes: Menomonee River Total - 136 sq mi (2010 Water Quality Management Plan Update); percent impervious computed based on land use from SEWRPC and TR-55.

While runoff volumes would increase under the Modernization Alternatives, the water quality analysis notes that the use of best management practices would reduce the level of pollutants in stormwater runoff compared with existing conditions and provide the opportunity to bring I-94 and the local roadway system in compliance with Wisconsin's stormwater management regulations.

Current and future land development within the Menomonee River watershed could cumulatively impact water quality despite any improvements implemented during the reconstruction of the I-94 East-West corridor and other freeway reconstruction projects. Redevelopment and development activities occurring in the watershed, such as ongoing activities in the vicinity of the Watertown Plank/US 45 interchange, increase impervious area. Increased impervious area from these developments could increase the likelihood of stormwater carrying sediment and other pollutants in streams that are already heavily degraded from historic urbanization.

As discussed in EIS Section 3.12, Surface Water and Fishery Impacts, WisDOT and FHWA are evaluating several best management practices to minimize the amount of runoff that enters water bodies, reduces flow velocity, and improves the water quality of the runoff. The use of retention/detention basins to manage stormwater from the proposed improvement is being evaluated along all sections of the project as the most practical and efficient practice.

Short-term highway construction impacts to water quality would be avoided or minimized by using WisDOT's *Standard Specifications for Road and Bridge Construction* (2009b) and complying with Trans 401 (State of Wisconsin 2013), which regulates construction site erosion control and stormwater management for transportation facilities. WisDOT would monitor performance of its control measures through its WisDOT-WDNR cooperative agreement ("Memorandum of Understanding on Erosion Control and Stormwater Management"). This memorandum of understanding requires WisDOT to implement a stormwater management program for its projects that is consistent with Section 402(p) of the Clean Water Act, Chapter 283 of the State Statutes, and NR 216 (State of Wisconsin 2014). WisDOT is required to implement stormwater management measures to remove 40 percent of the total suspended solids discharged from their storm sewers after construction. Best management practices required under stormwater and non-point runoff rules are expected to improve water quality as future projects and ongoing redevelopment occur.

As noted above, Trans 401 outlines stormwater management and erosion-control procedures for WisDOT projects. A regional policy is in place to maintain the peak discharge rate at the design year storm event, which would be determined by location but is generally the 25-year or 50-year storm event. Another mitigation measure is construction of buffer areas upstream of waterways and wetlands. Additional coordination with WWDNR will determine stormwater management measures if one of the Modernization Alternative is selected as the preferred alternative. WisDOT would implement best management practices for stormwater control and, therefore, would not cumulatively contribute to water quality impacts.

Compared with the No-Build Alternative, implementing best management practices for stormwater control under the preferred alternative can mitigate the direct effects of existing and increased stormwater runoff, which reduces the cumulative effects of past projects and other reasonably foreseeable future roadway projects. These

measures, which would include stormwater retention, focus on stormwater quality, but have a secondary benefit of managing stormwater volume as well.

WDNR and local governments are responsible for monitoring the performance of stormwater management measures and making corrective actions for non-WisDOT projects. To mitigate the impact of non-point source runoff, NR 151 sets forth performance standards for stormwater quality-control measures. For example, 80 percent of the total suspended solids from site runoff must be removed on new construction sites 1 acre or larger. After construction, permanent measures must be in place to continue removing 80 percent of total suspended solids in stormwater runoff from the site.

Potential measures to avoid and minimize impacts to water resources are summarized in Table 35 below.

Table 35: Summary of Potential Cumulative Effect to Water Quality and Quantity, and Mitigation measures

Effect	Mitigation	Responsible party
Freeway reconstruction projects in combination with past and ongoing urban development in Milwaukee County could increase impervious area within Menomonee River watershed and cumulatively effect stormwater runoff volumes and water quality.	Implement best management practices during freeway reconstruction	WisDOT
	Meet requirements of NR 216	WDNR/local communities for non-WisDOT projects WisDOT through Trans 401
	Adhere to WisDOT/WDNR Cooperative Agreement (Memorandum of Understanding on Erosion Control and Stormwater Management)	WisDOT
Construction-related erosion and related water quality impacts	Following WisDOT's *Standard Specifications for Road and Bridge Construction* (2009b) and meeting requirements of Wisconsin's TRANS 401 regulations Meet requirements of NR 216	WisDOT WDNR/Local communities for non-WisDOT projects

3.2.3 Business Areas

This section describes the potential cumulative effects to businesses within Milwaukee County.

Affected Environment

Milwaukee County contains the largest number of jobs compared with the other counties in the region. It has historically been the economic hub in Wisconsin, providing the region with a source of high-paying management and professional jobs in downtown as well as a supply of service and manufacturing jobs. With the exception of the 2000s, Milwaukee County has experienced a net gain of employment each decade going back to at least the 1950s. Declines in employment during the 2000s were associated with the national economic recession of the late 2000s. During this time, the region lost 2.7 percent of its employment. The majority of the job losses occurred in Milwaukee County, where employment declined by 42,900. See Section 2.2.1.2 for more information about past and projected employment in Milwaukee County.

The communities within the primary study area have been redeveloping former industrial areas over the past two decades to rebuild their economic bases. As a result, some areas within the primary study area such as West Allis and West Milwaukee have experienced growth in employment. Part of the economic vitality of the study area is due to its access to I-94 and the presence of a large population base and workforce. For more information about business development patterns in the study area see Sections 2.2.1 and 2.2.2.

Environmental Consequences/Potential Mitigation

The Modernization Alternatives would displace between seven and ten businesses. This direct project impact when combined with other past, present and future freeway reconstruction projects could cumulatively affect businesses within Milwaukee County. As shown in Table 36, 19 or 21 businesses would be impacted by Southeastern Wisconsin freeway reconstruction projects in Milwaukee County that have been completed, are under construction or are in the planning phase. Additional businesses are likely to be relocated in Milwaukee County as the remaining segments of the freeway network are reconstructed along I-894, US 45, I-43 and I-94 in the future. This is particularly true for the City of Milwaukee, which has multiple freeway corridors within its boundaries and had substantial loss of businesses from the original construction of the freeway system. Maintaining jobs in Milwaukee County is especially important for environmental justice populations, which are often dependent on transit because most areas of the county are accessible by transit.

Table 36: Cumulative Business Impacts in Milwaukee County

Project	SE Freeway Project	Business Displacements
Completed	Marquette Interchange	5
Milwaukee County portion completed	I-94 North-South	0
Under construction	Zoo Interchange	4
Planning phase	I-94 East-West	7 - 10
Planning phase	I-43 North-South	2

Source: Marquette Interchange Environmental Assessment; I-94 North-South Corridor Study FEIS; Zoo Interchange FEIS; I-94 East- West Freeway Corridor DEIS; I-43 North-South Corridor Study DEIS.

The business impacts are not expected to have a substantial cumulative effect on the Milwaukee County economy. The business impacts make up a very small portion of the 20,015 business establishments that are located in Milwaukee County as of 2010 (U.S. Census Bureau 2014). Also, the business displacements are expected to be offset by business development in other nearby areas. As discussed in Section 2.4.1.1, the Modernization Alternatives (with the exception of the removal of the Hawley Road interchange under Alternative C2, At-grade) are expected to have the indirect effect of facilitating planned redevelopment within the primary study area. This conclusion is supported by a recent TRB report that reviewed 100 transportation case studies (Strategic Highway Research Program 2012). The research found that highway projects can cause localized negative job impacts if property-takings are required, but in almost all the case studies, these impacts were offset by new economic activity that occurred somewhere else nearby. In addition, space is available to which businesses can be relocated within Milwaukee County. WisDOT's acquisition and relocation program would facilitate relocation assistance and it is likely that many of the displaced businesses would be relocated within Milwaukee County. Potential measures to avoid and minimize impacts to business areas are summarized in Table 37 below.

Table 37: Summary of Potential Cumulative Effect to Business Areas and Mitigation Measures

Effect	Mitigation	Responsible party
Potential cumulative economic effects from relocations as a result of where past, present and future freeway construction has or could occur in Milwaukee County.	• Minimize construction footprint impact on adjacent businesses. • Maintain local freeway access to the greatest practicable extent. • Complete acquisition and relocations in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Identify business relocation sites within Milwaukee County and/or nearby project area.	WisDOT

3.2.4 Neighborhoods

This section describes the potential cumulative effects to neighborhoods within Milwaukee County.

Affected Environment

Well-established residential neighborhoods can be found throughout the study area in the cities of Milwaukee, Wauwatosa and West Allis, and the Village of West Milwaukee. For more information about neighborhood development patterns in the study area see Section 2.2.2.2.

Maintaining infrastructure is important to a community's quality of life. Highways and other transportation infrastructure generally provide reliable access to employment and cultural centers and improve mobility of people and goods—both of which encourage continued investment throughout the community and within neighborhoods.

Conversely, infrastructure in and adjacent to neighborhoods can cause direct and proximity impacts such as right of way acquisition, displacements, and increased air, noise and visual impacts. The combination of these impacts can negatively impact quality of life. Neighborhoods close to large infrastructure become more vulnerable to these impacts as the infrastructure expands.

Environmental Consequences/Potential Mitigation

The I-94 East-West Corridor project would displace between seven and 13 residences depending on the Modernization Alternative. This direct project impact when combined with other past, present and future freeway reconstruction projects could cumulatively affect neighborhoods within Milwaukee County. As shown in Table 38, between 41 and 47 residences would be impacted by Southeastern Wisconsin freeway reconstruction projects in Milwaukee County that have been completed, are under construction or are in the planning phase. Additional residences are likely to be displaced in Milwaukee County as the remaining segments of the freeway network are reconstructed along I-894, US 45, I-43 and I-94 in the future. This is particularly true for the City of Milwaukee, which has multiple freeway corridors within its boundaries and had substantial loss of residences from the original construction of the freeway system.

Table 38: Cumulative Residential Impacts in Milwaukee County

Project	SE Freeway Project	Residential Displacements
Completed	Marquette Interchange	10
Milwaukee County portion completed	I-94 North-South	4
Under construction	Zoo Interchange	8
Planning phase	I-94 East-West	7 - 13
Planning phase	I-43 North-South	12

Source: Marquette Interchange Environmental Assessment; I-94 North-South Corridor Study FEIS; Zoo Interchange FEIS; I-94 East- West Freeway Corridor DEIS; I-43 North-South Corridor Study DEIS.

The anticipated impact is not substantial compared with the overall population in Milwaukee. However, there is a potential cumulative impact to Milwaukee neighborhoods where past and future freeway construction has and could occur. The City of Milwaukee is particularly concerned about the future reconstruction of the Southeastern Wisconsin freeway system, noting the vulnerability of neighborhoods that are subjected to the cumulative adverse impacts of expanding highways.

WisDOT has developed design modifications that avoid and minimize relocations to the extent possible. Other project features can also minimize the potential cumulative effect of the Modernization Alternatives. Noise barriers are feasible and reasonable in up to five locations along the project corridor. Traffic currently using local streets to avoid freeway congestion would also divert back to I-94, potentially reducing congestion on local streets and improving air quality. Improved traffic operations reduce emissions, which benefits air quality. During preliminary engineering, WisDOT will initiate a community sensitive solutions (CSS) process to further minimize

impacts, enhance infrastructure elements, and improve the visual quality of the I-94 corridor. Potential measures to avoid and minimize impacts to neighborhoods are summarized in Table 39 below.

Table 39: Summary of Potential Cumulative Effect to Neighborhoods and Mitigation Measures

Effect	Mitigation	Responsible party
Potential cumulative impact to Milwaukee neighborhoods where past, present and future freeway construction has and could occur.	• Minimize construction footprint impact on adjacent residences. • Implement noise barriers where feasible and reasonable. • Implement CSS process. • Complete acquisition and relocations in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Identify relocation properties within Milwaukee County and/or within project area.	WisDOT

3.2.5 Municipal Tax Base

This section describes the potential cumulative effects to municipal tax bases within Milwaukee County.

Affected Environment

Local taxes are used for many basic services by local governments including garbage collection, police and fire protection, local road construction and maintenance, public facilities, and other services. Local government tax revenues in Wisconsin have become more challenging in recent years as new development slowed due to the economic recession of the late 2000s, state aid for local governments has declined and strict levy limits have been created that cap the amount of money local governments can raise through property taxes. Table 40 shows the tax revenues that were collected for Milwaukee County municipalities in 2012. The table also indicates the local communities that are adjacent to a freeway and are most likely to be impacted by freeway property acquisitions.

Table 40: Local Government Tax Revenues in Milwaukee County - 2012

Municipality	Full Value of Taxable Property	Total Local Tax Collected*	Adjacent to Freeway
Village of Bayside	$561,263,900	$4,192,063	Yes
Village of Brown Deer	$962,776,000	$7,771,927	No
Village of Fox Point	$1,030,559,100	$6,986,229	Yes
Village of Greendale	$1,306,413,200	$9,209,742	No
Village of Hales Corners	$625,668,300	$5,002,996	No
Village of River Hills	$470,716,900	$2,936,479	Yes
Village of Shorewood	$1,300,467,300	$11,988,892	No
Village of West Milwaukee	$350,650,800	$3,955,222	No
Village of Whitefish Bay	$1,927,096,600	$10,583,636	No
City of Cudahy	$1,226,665,800	$7,980,434	No
City of Franklin	$3,524,105,900	$20,508,977	No
City of Glendale	$1,909,411,000	$12,160,977	Yes
City of Greenfield	$2,753,622,700	$21,995,429	Yes
City of Milwaukee	$26,407,923,000	$239,551,718	Yes

Municipality	Full Value of Taxable Property	Total Local Tax Collected*	Adjacent to Freeway
City of Oak Creek	$2,932,766,600	$19,087,098	Yes
City of St Francis	$607,019,900	$5,419,549	No
City of South Milwaukee	$1,182,325,800	$10,551,720	No
City of Wauwatosa	$4,963,918,700	$37,030,383	Yes
City of West Allis	$3,738,930,800	$38,940,771	Yes
Total Milwaukee County	**$57,782,302,300**	**$413,227,056**	NA

Source: Town, Village, and City Taxes – 2012. Wisconsin Department of Revenue.
**This amount is for village and city tax collections only. It does not include county or school district taxes.*

Environmental Consequences/Potential Mitigation

The Modernization Alternative for the I-94 East-West corridor project could cumulatively affect local government tax bases in Milwaukee County when combined with past, present and future freeway reconstruction projects. Table 41 shows the known municipal tax base impacts for Southeastern Wisconsin freeway reconstruction projects that have been completed, are under construction or are in the planning phase. The tax revenue losses are small compared with the total annual property taxes collected that are shown in Table 40. However, a loss of tax base can affect a community's ability to provide municipal services. This is particularly true for the City of Milwaukee, which has multiple freeway corridors within its boundaries and had substantial tax base loss from the original construction of the freeway system. Also, additional municipal property tax base in Milwaukee County is likely to be impacted as the remaining segments of the freeway network are reconstructed along I-894, US 45, I-43 and I-94 in the future.

Table 41: Cumulative Municipal Property Tax Base Impacts in Milwaukee County

Project Status	SE Freeway Project	Assessed Value Loss	Annual Local Tax Revenue Loss*	Tax Year	Municipalities Impacted
Completed	Marquette Interchange	Unknown	Unknown	Unknown	Milwaukee
Milwaukee County portion completed	I-94 North-South	$1,366,623	$70,314	2005	Milwaukee, Greenfield Oak Creek
Under construction	Zoo Interchange	$11,455,600	$76,990	2008	Milwaukee, Wauwatosa, West Allis
Planning phase	I-94 East-West	$6,544,953 - $7,644,193	$60,540 - $70,709	2011	Milwaukee
Planning phase	I-43 North-South	$8,254,322	$237,700	2012	Glendale, Bayside, Fox Point, River Hills

Source: Marquette Interchange Environmental Assessment; I-94 North-South Corridor Study FEIS; Zoo Interchange FEIS; I-94 East- West Freeway Corridor DEIS; I-43 North-South Corridor Study DEIS.
**Tax revenues are for local governments only. It does not include county tax revenues or other taxing jurisdictions.*

Of properties affected by right of way acquisition for the I-94 East-West project, about 80 percent of the properties are non-taxable parcels, which minimize the impact to the municipal tax base.

Maintaining safety, access and traffic operations can help support existing and planned commercial development in the area, which in turn helps maintain the municipal tax base. Potential measures to avoid and minimize impacts to the municipal tax base are summarized in Table 42 below.

Table 42: Summary of Potential Cumulative Effect to Municipal Tax Base and Mitigation Measures

Effect	Mitigation	Responsible Party
Past, present and future freeway construction in combination with state required tax levy limits could cumulatively affect municipal tax base and effect local government's ability to provide municipal services.	• Minimize construction footprint on adjacent properties. • Provide modernized transportation infrastructure that supports local economic development. • Complete acquisition and relocations in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Identify relocation sites within Milwaukee County and/or in close proximity to project area.	WisDOT

3.2.6 Historical Properties

Affected Environment

The study area is densely developed and includes a wide array of historic properties. Historic properties include buildings and historic districts and landmarks. WisDOT surveyed properties to identify possible historically significant structures within the study area corridor for the I-94 East-West Corridor project. WisDOT has identified the following historic resources, which are further described in the EIS:

- Northwestern Branch of the National Home for Disabled Volunteer Soldiers National Historic Landmark (or Soldiers Home NHL)
- Soldiers' Home Reef National Historic Landmark
- Calvary Cemetery, eligible for listing on the NRHP
- Story Hill Residential Historic District, eligible for listing on the NRHP
- American Hair and Felt Company, eligible for listing on the NRHP

Section 106 of the National Historic Preservation Act requires all federally funded project sponsors, which includes WisDOT, to consult with the State Historic Preservation Office (SHPO) and interested parties on the effects of proposed projects on historic resources. A similar state law, the Wisconsin Historic Preservation Act requires similar consulting requirements for state-funded projects.

Federally funded projects are also subject to Section 4(f) of the Department of Transportation Act. This law requires that projects can only use land from historic resources only if there is no prudent and feasible alternative to using the land, and measures to minimize harm are included in the project. Results of the ongoing coordination and resolution of requirements under Section 106 and Section 4(f) will be presented in this study's final environmental document. The study's final environmental impact statement (FEIS) will not be approved until the Section 106/Section 4(f) process has been completed.

Environmental Consequences/Potential Mitigation

Freeway construction along with ongoing development and redevelopment and lack of investment to maintain historic properties within the communities adjacent to the freeway could potentially cumulatively affect historic properties through demolition or alterations that affect the property's historic integrity.

Both federal and state laws help protect properties that are National Historic Landmarks, or are eligible for or listed in the NRHP. These laws require sponsors of state and federally funded projects to consult with the SHPO; however, these laws do not always apply to privately initiated actions that could affect historic resources where neither federal nor state permits/approvals are required. In addition to listed state and federal historic properties, local governments take measures to protect properties that are historically significant to their communities. To help avoid and minimize impacts to locally designated historic properties, the cities of Milwaukee, West Allis and Wauwatosa have historic preservation commissions to review plans and make recommendations before local approval.

FHWA has determined through the Section 106 process that all the I-94 East-West Corridor study Modernization Alternatives would have an adverse effect on the Soldiers' Home National Historic Landmark. The Double Deck Modernization Alternative would have an adverse effect on the Story Hill Residential Historic District and Calvary Cemetery. WisDOT and FHWA will continue to coordinate with SHPO to identify appropriate mitigation measures that will minimize cumulative impacts to historic resources. These mitigation measures will be documented in the FEIS.

Potential measures to avoid and minimize impacts to the historic resources are summarized in Table 43below.

Table 43: Summary of Potential Cumulative Effect to Historic Resources and Mitigation Measures

Effect	Mitigation	Responsible Party
Past, present and future freeway construction, ongoing development and redevelopment, and lack of investment to maintain historic properties could cumulatively affect historic resources within Milwaukee County, reducing the functioning and vitality of these resources.	• To be determined through Section 106 process. Potential mitigation includes: o Visual screening and for Calvary Cemetery and Story Hill neighborhood. o Story Hill neighborhood is eligible for noise barriers. o Establishing and endowment fund for soldier's home NHL	WisDOT
	• Local government historic preservation commissions	Local governments in Milwaukee County including Milwaukee, West Allis, West Milwaukee and Wauwatosa.

3.2.7 Regional Land Use Patterns

The evaluation of cumulative effects on regional land use patterns considered the recommendations for the regional freeway system in Southeastern Wisconsin and the status of its implementation were considered in combination with the proposed Modernization Alternatives for the I-94 East-West corridor and the other past, present and future actions in Table 31 to fully assess the potential cumulative effect to regional land uses and its consequences.

The 2035 regional transportation plan recommends widening 127 miles of the 270-mile regional freeway system in Southeastern Wisconsin (SEWRPC 2006). This includes adding travel lanes to I-94, I-43, I-894 and US 45 in Milwaukee County, and adding travel lanes to I-94 in Waukesha County. Eight lanes (four in each direction) are recommended for the I-94 corridor between downtown Milwaukee and WIS 16 in Waukesha County, which would add one new travel lane in each direction. The remainder of I-94 in Waukesha County would have six lanes.

To date, WisDOT has finished reconstructing the Marquette Interchange in downtown Milwaukee, and it has completed the Milwaukee County portion of the I-94 North-South corridor known as the Mitchell Interchange. WisDOT continues to complete reconstruction plans for I-94 in Racine and Kenosha counties as part of the I-94 North-South project. Those improvements are expected to be completed by 2021. Most recently, WisDOT initiated the construction of the Zoo Interchange project in Milwaukee County, which allows for the addition of new travel lanes if needed in the future. In addition to the I-94 East-West corridor, WisDOT is also currently studying options for the I-43 North-South corridor between Silver Spring Drive in Milwaukee County and WIS 60 in Ozaukee County. Construction is not yet scheduled for the I-94 East-West and I-43 North-South corridors, but if funding is approved, construction could occur around 2020. WisDOT has not yet initiated studies for several freeway segments in Milwaukee and Waukesha counties and construction has not been scheduled for these remaining segments. If funding is obtained, it is likely that the reconstruction of the remaining freeway segments in Milwaukee and Waukesha counties would be implemented within the 2040 timeframe of this analysis.

Other non-transportation actions that affect regional land use patterns include past suburban development in Waukesha County, ongoing and future infill development and redevelopment within the urbanized areas of Waukesha County, ongoing and future development of low-density subdivisions within the non-urbanized/non-sewered portions of Waukesha County that is not consistent with the SEWRPC 2035 regional land use plan. Also, several redevelopment projects are occurring or are in the planning phase in Milwaukee County. (See Section 2.2.2 for more information about land use and development patterns.)

Affected Environment

To understand regional land use patterns, it is important to first understand the historic growth patterns of metropolitan areas in the United States and the Milwaukee metropolitan area. The physical layout of U.S. cities during the first half of the 20th century was compact and focused around a central business district that contained a mixture of uses. Neighborhoods tended to be built on a street grid and small shops and businesses were often located along a main street district within walking distance to homes. Lands that were closest to the central business district often were the most valuable because they had the greatest accessibility to employment, transportation, and goods and services.

During the second half of the 20th century, after World War II, land development patterns changed dramatically as development spread to more outlying areas and people and businesses moved farther from the central business district. Residential, commercial and industrial land uses were separated and the street grid was replaced with an arterial roadway system. Driving became essential for most trips. This change is attributable to multiple factors including rising income levels, the expansion of the auto industry in the United States, the implementation of the federal Interstate Highway System, federal housing policies that encouraged homeownership, and local zoning ordinances. These land use pattern changes also occurred during a time period when the United States was undergoing great economic growth and large population increases due to the post WWII baby boom phenomena. The result has been metropolitan areas characterized by multiple clusters of development dispersed throughout a region instead of one central business district (EPA 2013).

The story has been similar for the Southeastern Wisconsin region. According to SEWRPC, "over the 100-year period from 1850 to 1950, urban development in the region occurred in a pattern resembling concentric rings around existing urban centers, resulting in a relatively compact regional settlement pattern. After 1950, there was a significant change in the pattern and rate of urban development in the region. While substantial amounts of development continued to occur adjacent to established urban centers, considerable development also occurred in isolated enclaves in outlying areas of the region" (SEWRPC 2006). The population density of the urban portion of the Southeastern Wisconsin region decreased significantly, from 10,700 persons per square mile in 1940 to about 5,100 in 1970; 3,900 in 1980; 3,500 in 1990; and 3,300 in 2000 (SEWRPC 2006). See Section 2.2 for more information about population, employment and land use trends for Milwaukee and Waukesha counties.

As the original construction of the Interstate system greatly improved accessibility to outlying areas and as a growing population and market forces attracted people to suburban locations, the value of central downtown locations diminished and disinvestment pursued (Boarnet and Haughwout 2000). Low-income residents became concentrated in central city locations as people with economic means moved to suburban locations. Also, as jobs decentralized, it became increasingly difficult for transit-dependent, low-skilled workers to obtain employment in areas of the region not served by public transportation.

Section 2.2.1, Socioeconomic Data and Trends, reviewed the distribution of minority and low-income populations within Milwaukee and Waukesha counties. Exhibit 8 shows a substantial concentration of minority populations in the City of Milwaukee's near-north, northwest and near south-side neighborhoods. Exhibit 10 shows the highest rates of poverty are located within the City of Milwaukee, especially north of I-94 and east of US 41. Areas of the city's south side also had high rates of poverty to the south of I-94 and east of 27th Street. In Waukesha County, the only substantial concentration of minority and low-income individual is in the central portion of the City of Waukesha. The remainder of the county has low poverty rates and low percentages of minority populations.

Environmental Consequences

The changes in the regional land use pattern discussed previously have not only impacted natural resources, but have also had social and economic implications for portions of the population. The primary concern raised by local stakeholders is that adding new travel lanes to the freeway system in Milwaukee and Waukesha counties could continue to facilitate low-density development patterns in Waukesha County and increase the number of jobs that are not accessible by transit.

As discussed in Section 2.5.1.1, the Milwaukee County Transit System (MCTS) provides good coverage to employment centers within Milwaukee County, but access to employment centers outside Milwaukee County is limited for those that do not have a vehicle due to the lack of transit routes that cross the Milwaukee County line, unreasonable travel times (greater than 90 minutes) or transit schedules that are not coordinated with reverse commuting and worker shifts.

Several research studies have documented the concerns surrounding transit access and workers in the Milwaukee area. A 2004 report titled, *Transportation Equity and Access to Jobs in Metropolitan Milwaukee*, identified a "spatial mismatch" between Milwaukee metropolitan's affordable housing supply in the City of Milwaukee and the availability of low-skilled jobs in adjacent suburban areas (Rast 2004). The report's research found that while 81 percent of families living below the poverty line are located in the City of Milwaukee, only 30 percent of businesses with strong hiring projections for entry-level workers are located in Milwaukee, and the remaining 70 percent are in the suburbs (Rast 2004).

More recently, the Public Policy Forum published a related report called *Getting to Work: Opportunities and Obstacles to Improving Transit Service to Suburban Milwaukee Job Hubs* (Peterangelo, Virginia and Henken 2013). The report examines the challenges associated with accessibility to the major employment centers (a concentration of at least 10,000 jobs) in Milwaukee, Waukesha, Washington and Ozaukee counties for workers in Milwaukee who do not have access to a vehicle for work trips. The report found that of the 29 job centers located within these counties, 15 have relatively high levels of public transit access (Milwaukee County), four are completely inaccessible by transit (Washington and Waukesha counties) and 10 are served by transit on a limited basis (all four counties).

Additionally, the SEWRPC 2035 regional housing plan found that 17 percent of households in the City of Milwaukee did not have access to a car in 2005-2009 and only 41 percent of employers (with 500 or more employees) in the region are accessible by local or rapid transit service (SEWRPC 2013). As a result, households in the City of Milwaukee that lack access to a car are not able to access the majority of employment centers in Waukesha County and the region.

The spatial mismatch is a complex issue and it is also complicated by the lack of work force housing outside Milwaukee County. The SEWRPC 2035 regional housing plan analyzed the ratio of available jobs and housing in the region to determine if communities with a substantial amount of existing and/or planned employment also have existing or planned workforce housing (SEWRPC 2013). The SEWRPC analysis found a current and projected jobs/housing imbalance for many of Milwaukee's suburban communities. Municipalities such as Brookfield, New Berlin, Muskego and others were found to have a lower-cost job/housing imbalance and a moderate-cost job/housing imbalance. This means that these communities have both a higher percentage of lower-wage jobs than lower-cost housing and they have a higher percentage of moderate-wage jobs than moderate-cost housing. According to SEWRPC, a moderate-cost imbalance is the most common type of current and projected job/housing imbalance in the region and also tends to occur in suburban communities. See Appendix E for a SEWRPC map that shows the projected 2035 jobs/housing imbalance.

Local transit funding is another important factor affecting the ability of local transit services to provide access to suburban job locations. MCTS has four primary sources of revenue for its operations. In 2014, passenger fares accounted for 35 percent, the State of Wisconsin provided 43 percent, the federal government provided 11 percent and Milwaukee County property taxes contributed about 11 percent to operating revenues (MCTS 2014). As discussed in the Public Policy Forum repot, *Milwaukee County's Transit Crisis*, public funding sources have not

kept pace with growth in transit operating costs (Henken, Horton and Schmidt 2008). The local share of funding public transit is largely provided by property taxes, which have to compete annually with funding for mandated services and projects. Increasingly, due to the constraints in property tax-based funding and shortfalls and fluctuations in federal and state funding, MCTS has found it difficult to provide funding to maintain current service levels and address transit needs beyond the county border. To address its fiscal challenges, MCTS has reduced transit service levels, resulting in a 22 percent decline in total annual bus miles between 2000 and 2012 (Peterangelo, Virginia and Henken 2013). While service reductions have mostly involved reduced trip frequencies and shorter hours of service, several bus routes that once connected Milwaukee County residents with suburban job centers have been eliminated (Peterangelo, Virginia and Henken 2013).

Funding for transit is further complicated by the fact that Wisconsin legislation limits WisDOT's ability to provide capital funding for transit outside traffic mitigation measures during construction projects. As stated in Section 85.062(2), Wisconsin Statutes, "No major transit capital improvement project may be constructed using any state transportation revenues unless the major transit capital improvement project is specifically enumerated under subsection (3)." In 2010, capital project revenue sources for MCTS were primarily funded by federal sources (80 percent) and from Milwaukee County (20 percent) (Gulotta-Connelly 2010).

Magnitude and Significance of Cumulative Effect

While the original construction of I-94 in Milwaukee and Waukesha counties in combination with post 1950s historic development patterns played a large cumulative role in the decentralization of development and jobs in the past, the study team has determined the subsequent improvements and widening to I-94 in Milwaukee and Waukesha counties would have a much smaller cumulative effect on regional land use patterns and redistribution of population and employment between Milwaukee and Waukesha counties. [4] (National Cooperative Highway Research Program 2002) (Boarnet and Haughwout 2000).

As discussed in Section 2.4.1.1, the land use patterns in Milwaukee and Waukesha counties have developed around a mature transportation system that already has a great deal of transportation accessibility. Research shows that the extent of land use effects is influenced by the maturity of the regional transportation system; and greater effects are associated with new facilities compared with existing facilities that are expanded (National Cooperative Highway Research Program 2002) (Boarnet and Haughwout 2000). Because so much development has occurred, it is difficult to distinguish the role of the freeway from other factors that influence development. Several stakeholders that participated in outreach for the ICE analysis stated they believe the location of one's workplace, school districts and housing style choices are the primary driving forces behind the residential location decisions within the region. Also, many stakeholders could not distinguish any substantial differences in land use and development patterns when asked to consider the I-94 East-West corridor project in combination with the reconstruction and widening of the entire freeway system in Milwaukee and Waukesha counties.

Plus, the suburban areas in Waukesha County closest to the project corridor including Brookfield and the urbanized areas of New Berlin and Menomonee Falls are largely built out and development has already spread as far west as Oconomowoc**.** This was confirmed at an interview with the Waukesha County planning manager who state development has spread throughout the county and that adding new lanes to I-94 would not change these already established land use patterns in Waukesha County. (See stakeholder interview in Appendix A) Also, interviews with local real estate professionals and many stakeholders at the June 6, 2013, focus group meeting did not think adding capacity to I-94 in Milwaukee and Waukesha counties would have much effect on existing land use and development patterns. Instead, they stated that adding capacity to I-94 was important to the continued development and redevelopment of business areas in Milwaukee County, because congestion makes it

[4] In the report, *Do Highways Matter? Evidence and Policy Implications of Highways' Influence on Metropolitan Development,* researchers found that the first limited access or interstate highway built in an urban area brought large improvements in transportation access and resulted in large increases in land prices. However, the researchers found that "as more highways are built, and the metropolitan highway network matures, the incremental effect on accessibility from new or improved highways decreases, thus accounting for a smaller change in land prices due to any access premium." The researchers further discuss that metropolitan highway investments still influence land use, but at a much smaller geographic scale, rather close to the project. (Boarnet and Haughwout 2000)

more difficult for Milwaukee County business districts (including downtown) to compete with other locations in the region that have less congestion (see Appendix B and Appendix C).

Furthermore, development in the non-urbanized areas of western Waukesha County is limited by a lack of sewer and water facilities, large environmental corridors that are preserved by local zoning, and local zoning ordinances that permit low-density development. Most importantly, the development potential of western Waukesha County is limited because it is farther from the existing concentrations of population and labor. This was confirmed by an interview with a local real estate developer that stated locations in western Waukesha County such as Oconomowoc are less desirable for commercial and industrial development because it is farther from the population base and available workforce. (See stakeholder interview with David Merrick, Irgens in Appendix C.)

Population and employment trends discussed in Sections 2.2.1 and 2.2.2 shows that the redistribution of population and employment between Milwaukee and Waukesha counties has slowed in recent decades and Milwaukee County has been gaining population. In addition, many communities and neighborhoods along the I-94 project corridor have been redeveloping former industrial areas and focusing on neighborhood revitalization as discussed in Section 2.2.2.2. This has increased the availability of jobs that are accessible via transit, walking or biking, which is important for environmental justice populations in Milwaukee County. In addition, redevelopment in Milwaukee County has made older urban neighborhoods more attractive to residents who prefer walkable neighborhoods, historic architecture and other recreational and cultural amenities offered by these communities. Infill development has maintained the viability of these existing urbanized areas, which has helped to minimize development that may have otherwise occurred in Waukesha County or other parts of the region.

Mitigation Measures

Transit access to jobs in suburban locations outside Milwaukee County is a complex issue that would require coordination of many different levels of government including federal, state and local agencies. Potential mitigation measures that would help improve transit access to jobs in suburban locations are summarized below and discussed in more detail in Section 2.5.1.1 under Growth Inducing Effects in Waukesha County. Table 44 summarizes the mitigation measures and the responsible parties.

Freeway Project-Related Measures. Because the provision and maintenance of transit services is under the jurisdiction of local governments in Wisconsin, WisDOT is not able to directly implement transit services. However, WisDOT has the ability to coordinate with local transit providers and select freeway reconstruction alternatives that could benefit transit or not preclude future transit options. For example, adding new travel lanes to the freeways in Milwaukee and Waukesha counties would benefit existing freeway flyer transit services that operate in freeway travel lanes as these services would benefit from improved traffic operations. Also, WisDOT could allow transit buses to operate in the freeway shoulders. Implementation of bus-on-shoulder transit operations would require cooperation between WisDOT, a local government entity like Milwaukee County and/or Waukesha County and their designated transit service providers (MCTS and Waukesha Metro). WisDOT also has the ability to mitigate any transit impacts that may occur during freeway reconstruction projects.

Regional Transit Implementation-Related Measures. According to SEWRPC, if the transit components of the 2035 regional transportation plan were implemented, many major employment centers that are not currently served by public transit would become accessible for people without access to a car, including those that work weekend hours and second and third shifts (SEWRPC 2013). According to the *Review and Update of the Year 2035 Regional Transportation Plan*, which SEWRPC conducts every four years, little progress has been made on the transit component of the regional transportation plan. In fact, the amount of transit service in Southeastern Wisconsin as of 2012 has declined since the plan was adopted in 2006, including a decrease of almost 7 percent in fixed-route bus service (SEWRPC 2014). Transit implementation largely falls under

Transit Funding-Related Measures. The primary reason the transit component of the regional plan has not been implemented is because the plan assumes state legislation would be passed to create a local dedicated transit funding source and that a renewal of adequate annual state financial assistance to transit would be provided as part of the State biennial budget. Attempts have been made at the State Legislature in recent years to establish

dedicated transit funding and RTAs, but these attempts have failed to pass the Legislature. Between 2005 and 2011, state transit operating funding to Southeastern Wisconsin increased by 4 percent annually, federal transit operating funding increased about one percent and local transit operating funding decreased slightly (SEWRPC 2014).

Housing-Related Measures. Consistency with the SEWRPC recommendations in the 2035 regional housing plan could help to address the existing and projected jobs/housing imbalance. The plan advises local governments with existing and planned employment land uses that have sewer services to conduct detailed analyses of their communities to confirm if an existing or planned job/housing imbalance exits. For communities that have a higher percentage of lower-wage jobs than lower-cost housing, new affordable multifamily housing developments are recommended. For communities with a higher percentage of moderate-wage jobs than moderate-cost housing, additional modest sized single-family homes on small lots would help to improve the imbalance. Progress towards achieving the recommendations in the SEWRPC Housing Plan is complicated by the fact that SEWRPC is an advisory agency. Local governments would need to make substantial changes to local land use plans and zoning regulations to increase the region's supply of housing that is available to workers.

Land Use Related Measures. Local government consistency with the SEWRPC 2035 Regional Land Use Plan would help the region develop in a more compact manner that can support transit. The 2035 regional land use plan supports centralized regional settlement patterns, revitalization of urban centers, infill development and new urban development at densities that effectively support essential urban services including water, sewer, and public transit. Because land use is under the jurisdiction of local governments, the 2035 regional land use plan recommendations primarily need to be implemented by local governments in the region.

Table 44: Summary of Potential Cumulative Effect to Regional Land Use Patterns and Mitigation Measures

Effect	Mitigation	Responsible Agency
The original build out of the freeway system in Southeastern Wisconsin and the past and ongoing expansion of the freeway system (including the I-94 East-West corridor) in Milwaukee and Waukesha counties in combination with post 1950s historic development patterns have cumulatively contributed to the decentralization of development and jobs in the region and have affected the ability of transit-dependent populations to obtain employment outside Milwaukee County.	Freeway Project-Related Measures: • Select freeway reconstruction alternatives that benefit transit service operations or that do not preclude future bus-on-shoulder transit operations • Freeway construction mitigation for transit impacts	WisDOT
	Regional Transit Implementation-Related Measures: • Implementation of the transit component of the 2035 regional transportation plan.	Local government entities (i.e. Milwaukee County and Waukesha County) and transit service providers (i.e. MCTS and Waukesha Metro)
	Transit Funding-Related Measures: • Implementation of local dedicated funding source • Ongoing operational funding support	Dedicated funding: Wisconsin State Legislature would need to pass enabling legislation; local governments would need to approve Ongoing operation funds: Local, state and federal governments all provide transit operations funds
	Housing-Related Measures: • Conduct local studies to identify worker housing/affordable housing needs for communities that have a jobs/housing imbalance and identify local strategies to reduce imbalance. • Changes in local zoning codes to allow new affordable multifamily housing and additional modest sized single-family homes on small lots.	At the request of local governments, SEWRPC could assist municipalities with studies. . Local governments in Milwaukee and Waukesha counties are responsible for zoning codes provisions.

Effect	Mitigation	Responsible Agency
	Land Use-Related Measures: • Consistency with the 2035 regional land use plan that encourages redevelopment and infill development and expansion of urbanized areas adjacent to existing development.	Local governments in Milwaukee and Waukesha counties

3.2.8 Air Quality

Based on the air quality analyses completed for the proposed improvements in EIS Section 3.20, the I-94 East-West corridor project will not contribute to any violation of the NAAQS. MSAT emissions will decrease with any of the Modernization Alternatives, and neither carbon monoxide nor $PM_{2.5}$ levels will exceed the air quality standards. Air quality was included in cumulative effects discussion because air quality concerns have been raised by the public as a resource of concern. This section discusses the potential cumulative effects to air quality in Southeastern Wisconsin.

Affected Environment

The Clean Air Act of 1970 established National Ambient Air Quality Standards (NAAQS). These were established to protect public health, safety, and welfare from known or anticipated effects of air pollutants. The most recent amendments to the NAAQS contain criteria for sulfur dioxide (SO_2), particulate matter (PM_{10}, 10-micron and smaller along with $PM_{2..5}$, 2.5 micron), carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), and lead (Pb).

The study area freeway system is located within the Southeastern Wisconsin Intrastate Air Quality Control Region #239. Milwaukee County is currently in attainment status for five of the six criteria pollutants, and has been redesignated to a maintenance area for $PM_{2.5}$ (see EIS Section 3.20, Air Quality, for more information).

Environmental Consequences/Potential Mitigation

Past and ongoing development of the freeway system along with other activities and developments in the study area (see Table 31), may have a cumulative impact on air quality in the region. Other activities in the region such as the expanded Oak Creek coal-fired power plant and continued regional traffic growth are sources of air pollutants. By the year 2040, average weekday traffic along the I-94 project corridor is expected to increase by 15 percent and current and future development in the region has the potential to continue to impact air quality.

WDNR manages, monitors, and enforces air quality programs in Wisconsin. To help manage the air quality program, WDNR works with a range of industries, agencies, interest groups, and individuals to develop the state implementation plan (SIP) that demonstrates how Wisconsin will attain compliance with national air quality standards. FHWA also provides congestion management and air quality grants for transportation projects in non-attainment areas that will reduce transportation-related air emissions.

Ultimately, the U.S. Environmental Protection Agency (EPA) plays a major role in managing Wisconsin's compliance with the Clean Air Act, which includes monitoring the SIP. If the state and southeast Wisconsin region cannot achieve attainment standards, EPA can impose sanctions, such as stricter emissions rates for new developments and withholding federal funds for transportation projects.

To obtain federal funding, the reconstruction of the I-94 East-West Corridor must be included in transportation plans that conform to the SIP. At the regional level, SEWRPC prepares a transportation improvement program (TIP) to assure conformance with the SIP. Conformity with the SIP means projects contained in the TIP will not worsen air quality or delay attainment of air quality standards. The I-94 East-West corridor project is included in SEWRPC's conforming TIP for preliminary engineering for reconstruction (estimated cost was $5 million). As a result, the project may contribute to air quality concerns, but it is not expected to create a substantial negative cumulative impact to air quality, as measured by current pollutant standards.

WisDOT compared the projected 2040 design year traffic volumes for the I-94 East-West Corridor with the 2035 design year traffic volumes which served as the basis for the CO modeling conducted for the Interstate I-94, I-894,

and U.S. Highway 45 (Zoo Interchange) project. The mainline, cross street and ramp volumes for the Zoo Interchange project were all greater than I-94 East-West project and the modeled CO concentrations were less than 75 of the NAAQS, therefore, the CO concentrations would be well below the CO NAAQS from the proposed I-94 East-West project.

The project has been determined by the Transportation Conformity Workgroup to not be a project of air quality concern for $PM_{2.5}$. In addition to meeting air quality standards, there is growing concern over the direct and cumulative effect of Mobile Source Air Toxics (MSATs). WisDOT and FHWA evaluated the potential change in MSATs from the Modernization Alternatives and the No-Build Alternative. In the EIS, Section 3.21, Air Quality, contain detailed discussions of MSAT analysis.

According to the MSAT analysis, MSATs will decrease in the future because of EPA's national pollution control programs. In 2007, a new EPA rule to regulate MSATs, "Control of Hazardous Air Pollutants from Mobile Sources," went into effect. The rule sets new standards for fuel consumption, vehicle exhaust emissions, and evaporative losses from portable containers that will be phased in between 2011 and 2015.

The MSAT analysis indicates that by 2040 MSAT pollutants will decrease 70 to 87 percent for 6 of the 7 priority air toxics and over 96 percent for diesel particulate matter from 2008 conditions.

When a highway is widened and, as a result, moves closer to receptors, the localized level of MSAT emissions may increase. However, this could be offset by increases in speeds and reductions in congestion, which are associated with lower MSAT emissions.

Greenhouse gas emissions are also a concern in the I-94 East-West Corridor air quality study area. While there are no accepted quantitative tools to estimate greenhouse gases at the project level, vehicles using the I-94 East-West corridor can be expected to contribute to greenhouse gas emissions within the region. Currently, the major way to reduce emissions of greenhouse gases from transportation is to reduce the amount of fuel consumed. This can be accomplished by reducing congestion (more efficient driving conditions), reducing driving, and more fuel efficient vehicles.

Local governments can help manage and reduce greenhouse gases by utilizing appropriate land use and zoning policies that reduce travel demand within individual communities and southeast Wisconsin. A study published by the Urban Land Institute indicates that the continuing growth of VMT may offset emissions reduction gained through technological improvements in vehicles and fuels (Ewing, et al. 2007). The study points to the importance of reducing vehicle miles of travel by managing growth and land use patterns. Several studies on the relationship between land use and vehicle trips found that where diverse land use, accessible destinations, and interconnected streets exist, households drive 33 percent less compared to households in low-density developments. Local government plans that are consistent with the SEWRPC regional land use and transportation plans would help ensure the most efficient land use and zoning policies within the region.

Increased amounts of greenhouse gas in the atmosphere can have impacts on the environment and human health across the planet. Examples of these impacts include rising sea levels, causing erosion of beaches and shorelines, destruction of aquatic plant and animal habitat, floods of coastal cities, and disruption of ocean current flows; a warming trend over much of the planet, broadening the range for many insect-borne diseases; and chronic stress of coral reefs. The possible impacts of global warming to Wisconsin include warmer and drier weather; decreases in the water levels of the Great Lakes, inland lakes, and streams (which may affect shipping operations); increases in water temperature (lowering water quality and favoring warm water aquatic species); changes in ecosystem and forest composition; increases in droughts and floods (impacting crop productivity); and reduction of snow and ice cover (WDNR; Public Service Commission of Wisconsin 2008).

Potential measures to avoid and minimize impacts to air quality are summarized in Table 45 below.

Table 45: Summary of Potential Cumulative Effect to Air Quality and Mitigation Measures

Effect	Mitigation	Responsible party
Increased traffic volumes from past, present and future freeway construction and past and ongoing urban development and power plant generation could cumulatively increase emissions, including MSATs and greenhouse gases and affect air quality in the region.	Local land use and transportation plans policies consistent with the SEWRPC Regional Land Use Plan and Regional Transportation Plan	SEWRPC and local communities
	Implement infrastructure recommendations consistent with the regional transportation plan and project level studies that are included in the TIP.	WisDOT
	• Compliance with the Clean Air Act • Compliance with EPA final rule: Control of Hazardous Air Pollutants from Mobile Sources under the Clean Air Act CAA Section 202(l)	US EPA WDNR manages, monitors, and enforces air quality programs in Wisconsin.

3.2.9 Construction Impacts

This section describes potential cumulative effects from ongoing freeway construction within Milwaukee County.

Affected Environment

The Southeastern Wisconsin freeway system, which includes 270 miles of freeway, is nearing the end of its service life and needs to be reconstructed over the next 20 to 30 years. As a result, WisDOT has begun construction on major portions of the freeway system and is planning for the reconstruction of addition segments. To date, WisDOT has completed the reconstruction of the Marquette Interchange in downtown Milwaukee and has completed the Milwaukee County portion of the I-94 North-South corridor (Mitchell Interchange). WisDOT recently initiated the construction of the Zoo Interchange project in Milwaukee County and is planning for the reconstruction of the I-94 East-West corridor and the I-43 North-South corridor.

The City of Milwaukee has expressed concerns about the duration of construction on its effects on local communities. In particular, concerns included impact of increased traffic diverted to local streets during construction and a lack of transit options that would be provided to allow travelers to choose alternate transportation and help alleviate local street traffic congestion. The concern is primarily based on past freeway construction of the Marquette Interchange, current construction of the Zoo Interchange and future construction of the I-94 East-West corridor. Other construction related impacts could include noise and vibration, air quality and water quality.

Environmental Consequences/Potential Mitigation

During construction, traffic on the I-94 East-West Corridor may divert to local streets to avoid potential delays. Traffic diversion could have a cumulative adverse effect on local streets including reduced traffic operations, increased wear and tear, increased safety hazards and difficulty accessing local neighborhoods, services and businesses during construction-related closures. Furthermore, declining transit service limits the availability of local transportation options that could help reduce congestion-related impacts on local streets, as well as the freeway system.

WisDOT will implement a transportation management plan (TMP), which has the purpose of improving safety, minimizing congestion and adverse traffic impacts and providing for improved public satisfaction during construction. Some of the key strategies of the TMP will include temporary traffic control measures and devices, local road improvements, public information and outreach and transportation operations (variable message signs, for example) and incident management strategies. Depending on additional coordination with local officials,

WisDOT will investigate transit options as a mitigation measure to manage traffic demand during construction. Some recent examples of transit mitigation strategies on the I-94 North-South freeway reconstruction project are listed below:

- Providing a temporary park-and-ride lot during reconstruction of an existing park-and-ride lot.
- Providing funds to MCTS to add buses to fixed routes and freeway flyer routes to maintain headways during construction.
- Reimbursing MCTS on a per rider basis to provide free bus rides around closed roadways and/or bridges.
- Providing funds to a private bus service to offer reduced fares to and from baseball games during freeway construction in Kenosha.

Noise and vibration from construction activities will vary by type of equipment in use and frequency of equipment use. The cumulative effect of these temporary impacts are managed through WisDOT special provisions for construction, which include requirements for contractors to maintain equipment and operate in compliance with relevant state, federal and local laws and regulations. Other ongoing construction projects are also typically subject to nuisance ordinances, including the City of Milwaukee's Chapter 80 nuisance ordinance.

Dust and air emissions from equipment and construction activities are common air quality impacts, which are managed by adhering to EPA emissions standards for equipment and on-site management strategies such as idling times, equipment maintenance, clean fuel and diesel emission control devices. Standard dust control measures such as on-site watering and equipment cleaning minimize impacts. For other construction projects, the City of Milwaukee's nuisance ordinance also regulates excessive discharge of air polluting materials such as dust.

Cumulative effects on water quality from construction activities are typically related to erosion from exposed soils. Erosion control is managed through compliance with WisDOT's *Standards and Provisions for Road and Bridge Construction*, Wisconsin Administrative Code Chapter Trans 401 and the WisDOT/WDNR Cooperative Agreement. For other construction projects, WDNR also enforces erosion control through NR 216, and the City of Milwaukee also enforces water quality through its stormwater management regulations in Chapter 120 of the city's ordinances.

Potential measures to avoid and minimize construction impacts are summarized in Table 46 below.

Table 46: Summary of Potential Cumulative Effect of Construction and Mitigation Measures

Effect	Mitigation	Responsible party
Ongoing construction in Milwaukee County from back-to-back Southeastern Wisconsin freeway reconstruction projects could increase traffic diversions, resulting in congestion on local streets; negative physical impacts to local infrastructure; impacts to access to neighborhoods, local services and businesses.	• Implement transportation management plans and seek feedback from local stakeholders, including MCTS and local communities • Improve adjacent arterials and intersections that would be impacted by freeway construction per recommendations of the transportation management plan. • Ongoing outreach to inform the public about construction activities, closures and alternate routes.	WisDOT
Noise and vibration	• Include special provisions for operation and maintenance of construction equipment. • Comply with applicable construction-related federal, state and local ordinances.	WisDOT

Effect	Mitigation	Responsible party
Air quality	• Adhere to EPA emissions standards. • Comply with WisDOT *Standards and Provisions for Road and Bridge Construction*.	WisDOT
Water quality	• Comply with WisDOT *Standards and Provisions for Road and Bridge Construction*. • Comply with Trans 401 and the WisDOT/WDNR Cooperative Agreement	WisDOT

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Appendix A: Stakeholder Meeting Summaries

I-94 East-West Corridor Study
Indirect and Cumulative Effects
Meeting Minutes for Stakeholder Interviews

Meeting	City of West Allis
Date, Time	February 4, 1:30 p.m.
Location	West Allis City Hall, 7525 W Greenfield Ave, Room 220
Attendees	John Stibal, West Allis Bart Griepentrog, West Allis Patrick Schloss, West Allis Kristi Johnson, West Allis Dobra Payant, WisDOT Carolyn Seboe, HNTB Charlie Webb, CH2M Hill

Meeting Summary

A meeting was conducted with the city of West Allis, Department of Development to discuss indirect and cumulative effects for the Environmental Impact Statement being prepared for the I-94 East-West Corridor Study. After introductions, an overview of the alternatives that are being evaluated for the study was discussed. The project team mentioned the range of no build and build alternatives. More detailed information focused on the modernization alternatives that could affect West Allis including the interchange alternatives at 70th/68th streets, Hawley Road and the cemetery section.

The following is a summary of the comments that were made by West Allis staff members:

- Don't close access points and avoid long tunnels (people lose their sense of direction). West Allis heard that a 1.8 mile long tunnel could be constructed. The project team explained that a tunnel is not being considered and showed them where the double deck options through the cemetery were being evaluated.
- West Allis staff asked how congestion is defined and how the project team determines congestion. Charlie Webb explained that the corridor is being designed for 2040 (20 years beyond the anticipated construction date) and looks to achieve a LOS D during peak periods. They do not design for traffic during special events. Traffic analysis is still being developed, but the team anticipates that capacity expansion would provide only a few minutes of travel time savings.
- Preserve the 70th/68th street interchange. It provides access to West Allis' corporate gateway, State Fair Park, West Allis Towne Center and the Six Points Neighborhood. West Allis anticipates the density of employment and residential uses to continue to increase in this corridor. Some examples of developments include
    - Summit Place – existing office complex; contains 150 businesses; employs over 4,000 employees.
    - Renaissance Faire building (former Sam's Club) was renovated and has 250,000 SF of new office space.
    - Poblocki Sign
    - Milwaukee Area Technical College – West Allis campus
    - Global Power Components
    - Six Points Neighborhood - has 250 apartments planned
    - New office users are coming to the area.
    - New industrial use at southeast of Burnham and 68th intersection.

- The West Allis Comprehensive Plan proposes a long-term vision for the Milwaukee Mile Race car facility next to State Fair Park. If the racing operations were to end, the city would work to redevelop the area into a mixed-use high density office complex. The area contains over 100 acres and West Allis feels the area would be in high demand because it is centrally located in the Milwaukee area and the Milwaukee County Grounds are nearly built out. They anticipate office, residential, hotel uses. They would center the plan on daylighting the creek that is currently underground. West Allis said the density of the development would impact all of the area local streets and the adjacent interchanges would need to be able to accommodate the traffic.
- A new hotel and grocery store will be constructed in 2013 at the southeast corner of 84th Street and Greenfield.
- John Stibal said West Allis's primary concern is the interchanges because they serve West Allis' vision for redevelopment. Both the 70th/68th and Hawley interchanges are important for West Allis – they create "marque" areas.
- John Stibal said they are not worried about the proposed capacity expansion of the freeway. Their concern is with the interchanges.
- When asked about what interchange configuration option would be best for West Allis, John Stibal said it depends on the driver perception. Need to have interchanges that are easy for drivers to recognize and use. The braided configuration seems to be most similar to existing conditions with entrance and exit ramps close to the arterial streets. They were somewhat concerned about options (such as frontage and C/D roads) where drivers would have to anticipate the exit farther down the highway away, farther from their destination. John felt that if one of these options is selected signage would be very important. The configuration is not as important as the idea of an interchange.
- John said they are not concerned about traffic on local arterial streets. At this point they do not feel that lack of capacity on the freeway is affecting local arterials. They do see backups on the arterials when the freeway is severely backed up.
- If the no action alternative is selected or if spot improvements are selected, West Allis would be ok with that, they would be able to accomplish their goals with the existing access.
- West Allis felt the US 41 interchange with I-94 was over designed for the traffic. If the status of the interchange is downgraded to a service level it would not affect West Allis.
- The city's 2030 Comprehensive Plan, zoning and TIF Districts are available on the city's website.
- At the conclusion of the meeting, we explained that we will be hosting a focus group meeting in the spring to presents the results of the analysis and to obtain feedback. West Allis will be invited.

See figure on next page that shows development trends in West Allis.

Notes prepared by Carolyn Seboe, HNTB


Interchanges critical for West Allis to achieve local economic development goals
Pink Area - 70th/68th interchange serves West Allis redevelopment of former Allis Chalmers. Includes:
• Office corridor mixed with industries
• Town Center retail
• Six Points Neighborhood (apartment dev)
New Renaissance Faire Office
Summit Place Office Complex
MATC
Long term plans to redevelop Milw Mile into large/dense mixed-use office complex
250 apartments
New hotel and grocery store – construction 2013
New industrial
94
Mount Calvary Cemetery
Spring Hill Cemetery
Miller Park
Johnsons Woods Neighborhood
Dickinson St
Veterns Affairs
Joy Global
Zablocki VA Medical Center
State Fair Park
West Allis Town Center
Greenfield Ave
Walmart
Target
Six Points Neighborhood
VILLAGE OF WEST MILWAUKEE
Burnham St
Menards
JS Distribution
GE Healthcare
Lincoln Ave
Becher St
Lapham St
84th St
76th St
72nd St
70th St
68th St
64th St
60th St
Hawley Rd
Mitchell Blvd
Miller Park Way
Belpit Rd

I-94 East-West Corridor Study
Indirect and Cumulative Effects
Meeting Minutes for Stakeholder Interviews

Meeting	Waukesha County, Department of Parks and Land Use
Date, Time	February 6, 10:00 a.m.
Location	515 W. Moreland Blvd., Waukesha, WI, Room AC 230
Attendees	Dobra Payant, WisDOT Carolyn Seboe, HNTB Jason Fruth, Waukesha County Planning & Zoning Manager

Meeting Summary

A meeting was conducted with Jason Fruth, the Waukesha County Planning and Zoning Manager to discuss indirect and cumulative effects for the Environmental Impact Statement being prepared for the I-94 East-West Corridor Study. After introductions, an overview of the alternatives that are being evaluated for the study was discussed.

The following is a summary of the comments that were made by Jason at the meeting:

- Jason asked if there is any consideration of commuter rail. He feels there needs to be transit/commuter rail that facilitates mobility east/west between Milwaukee and Waukesha counties. Also, Jason mentioned there is a chronic problem with wrong way drivers and drunk driving in this corridor and a commuter rail system would help.
- Jason does not feel the project will cause any significant changes to the land use patterns in Waukesha County. The two counties already have a strong relationship and there is already a substantial movement of people and commerce between the two counties. Jason feels the “reverse commute” is increasing with more young professionals moving to downtown Milwaukee.
- Jason felt reducing congestion along the highway would help build a strong regional economy by creating more efficient movement of products, resulting to more efficient businesses. He also thought reducing congestion would reduce fuel use and pollution.
- The county adopted a comprehensive plan in 2009 (available on their website). About 4/5 of the communities in Waukesha County participated.
- All communities in Waukesha County have zoning and land use plans in place including unincorporated areas.
- The county has a stormwater ordinance. All but two towns are subject to the ordinance. Brookfield and Eagle have their own stormwater ordinance.
- Jason mentioned the eastern portion of the county is mostly built out and development has already gone much farther west. If Brookfield had vast tracks of land remaining, indirect effects may be a greater concern, but they are now a built out community.
- Jason said aesthetic/CSD elements will be important. The freeway is a gateway to Milwaukee and it is the first impression many visitors to Milwaukee see. The freeways into St. Paul/Minneapolis leave an impression on visitors as you enter the Twin Cities.
- Jason mentioned how other communities have created green pockets along urban freeways such as Chicago and Pennsylvania. After the meeting, Jason forwarded the following link to the Chicago Greenway Project. http://www.gatewaygreen.org/about-us/

Notes prepared by Carolyn Seboe, HNTB

I-94 East-West Corridor Study
Indirect and Cumulative Effects
Meeting Minutes for Stakeholder Interviews

Meeting	Menomonee Valley Partners, Inc. (MVP)
Date, Time	February 6, 1:00 p.m.
Location	301 W. Wisconsin Ave., Suite 400B, Milwaukee, WI 53203
Attendees	Dobra Payant, WisDOT Carolyn Seboe, HNTB Brad Heimlich, CH2M Hill Corey Zetts, Executive Director, MVP

Meeting Summary

A meeting was conducted with Corey Zetts, MVP Executive Director, to discuss indirect and cumulative effects for the Environmental Impact Statement being prepared for the I-94 East-West Corridor Study. The project team has already met with MVP staff and its board at previous meetings to go over the alternatives. Therefore, Corey did not feel we needed to review the alternatives at this meeting.

The following is a summary of the comments that were made by Corey:

- MVP has just started the process of updating the Menomonee Valley Plan. The last plan was adopted in 1998. The plan is being conducted with the city of Milwaukee and has a contract management team that includes members such as Harley, Potawatomi, Marquette Univ and some businesses along St. Paul Ave.
- The 1998 plan focused on redeveloping the Canal Street corridor. MVP feels that much of the 1998 plan has been fulfilled including the Menomonee Valley Industrial Center, Canal Street Commerce Center, the Harley Davidson museum, and Reed Street yards (planned water industry cluster).
- The 1998 plan helped to establish the valley as a destination for work, recreation and entertainment. In 1998 the valley had 5,000 jobs. Now the valley has 150 businesses and 14,000 employees. Redevelopment in the last 10 years created about 4,700 new jobs at a rate of 22.5 jobs per acre. Based on this information and available land, the valley could add another 2,000 jobs. The valley also generates 10 million tourist visits annually as the home of some of Wisconsin's top tourist destinations (i.e. Potawatomi, Harley)
    - MVP provided a document that shows the remaining development opportunities in the valley. (attached)
- The new plan will focus on the St. Paul Ave corridor and improving public access to the river. They are looking at high end green manufacturing. They will also focus on branding the valley as a cohesive entity/neighborhood. Residential uses are still off the table. Businesses along St. Paul are starting to invest in properties. Future uses are still to be determined, but home improvement/show room/light manufacturing seems to be a good fit for the corridor.
- The valley has many recreational amenities including:
    - Hank Aaron State bike trail
    - Valley passage – connects valley with the near south side neighborhood (dense residential area) and the Urban Ecology Center on Pierce Street.
    - A new 24-acre park (Airline Yards Park) – under construction, $2.5 million left to raise (partnership between MVP, city, state, Urban Ecology Center, others)
    - Soccer fields and playground – After the Airline Yards Park is completed, MVP will start focusing on raising money for the planned soccer fields located to the south of the railroad tracks, under and on both sides of the 35th Street viaduct. Canal Street forms the east and south border.

- Many employees that work in the Canal Street Commerce Center at businesses like Palermos and Falk use the bus route (Route 35) that has a stop on the 35th Street viaduct. They use the staircase that connects the viaduct to the valley. Many employees also use Route 17 along Canal Street.
- City Lights is a recent development to the east of 25th Street, north of the Menomonee River and south of the railroad tracks (south of St. Paul). City Lights is the first phase of a "planned development zone" that included the renovation of the historic Gas Light Company building at the west end of the development site. New public access to the river was provided. The building is used as offices for architecture and engineering firms. A second phase is anticipated to the east of City Lights project pending a new development proposal coming forward.
    - The main access for this site is from 25th Street on the west end. It is important for this access to be maintained.
    - 17th Street provides another access point, but the railroad crossing could be closed which would eliminate this access to St. Paul Avenue. Another access point is on the east end at 13th Street. This would require extending and improving Mt. Vernon Street to the east.
- 25th Street is very important to the valley because it not only serves the City Lights development, but it also acts as alternate route when a train blocks 13th Street.
- When traffic on the west side of Canal Street is congested it interferes with Falk's business shipments and employee shifts. St. Paul can also back up and it affects customers' ability to access on-street parking that is relied upon by St. Paul businesses.
- Flooding is a concern for businesses along St. Paul Avenue. Water is draining from the Badger Truck site onto St. Paul and through the businesses. MVP is looking into ways to capture and redirect the stormwater.
- MVP is working to improve the roadway connection to the former Basil Ryan site to encourage development.
- MVP wants to keep access from the freeway easy to get in and out of the valley.
- MVP is concerned about the footprint of the new freeway and wants to make sure developable parcels are maintained. Parcels that can't be developed tend to encourage nuisance activities.
- MVP prefers the 35th Street closure and braided ramps alternatives on the east segment.
    - No access at 35th Street would not impact the valley businesses. MVP feels it would simplify access in this area (fewer driver decisions) and creates a more direct 27th Street interchange, which is most important to valley businesses.
    - If the 35th Street interchange is maintained, MVP feels the braided option would also make it easy for people to get on and off.
    - They are concerned about interchange options such as CD and frontage roads that make access less direct and potentially increase travel time.
    - MVP also prefers to maintain the St. Paul connection under the freeway.
- MVP is concerned about the hill at the 35th Street ramp and how the road will intersect with the Hank Aaron trail.
- Development constraints to the St. Paul corridor include:
    - The presence of nuisance activities that create an unwelcoming environment.
    - St. Paul intersections with 28th through 25th is confusing and the land uses are not well kept.
    - The city lots are not a good gateway
    - Need to improve neighborhood connectivity (vehicle and pedestrian)
    - Need to improve access to properties along the river. (have a development easement along north side of river in place.)
- The valley currently benefits from its access and visibility to the freeways. They are concerned about how high the new ramps will be and if they will block visibility to the valley.
- The valley has strong market demand; it just needs to free up the space for development. They have many requests for commercial, but nowhere to put them. They are losing opportunities to other places in the city or the region – larger commercial developments going somewhere else. MVP is working to make land available. Valley businesses benefit from large workforce in the area.

- When asked about capacity expansion, Corey said MVP sees the need for modernization and they see problems with congestion and accidents.
- At the conclusion of the meeting, we explained that we will be hosting a focus group meeting in the spring to present the results of the analysis and to obtain feedback.

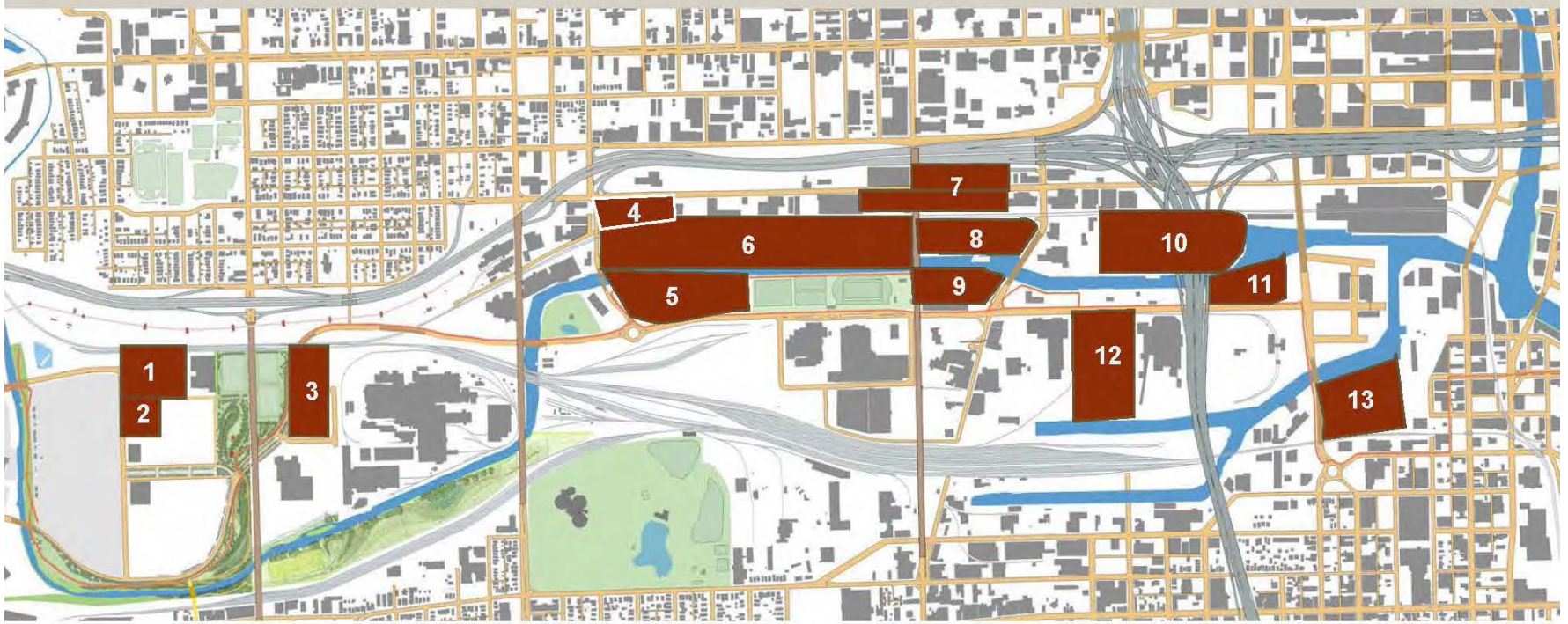
See figure on next page that shows development trends in the Menomonee Valley.

Notes prepared by Carolyn Seboe, HNTB


MV Industrial Center
Future soccer fields
Falk Corp
City Lights
Flooding
Former Basil Ryan property
Harley Davidson Museum
FOCUS OF PLAN UPDATE
Valley Park Neighborhood
Hilltoppers Neighborhood
Marquette University
Potawatomi Bingo Casino
Valley Passage
Palermos
New 24 - acre park
Most important access point to valley
Canal Street Commerce Center
Reed Street Yards

Development Opportunities in the Menomonee Valley

Properties available or city owned and poised for redevelopment. Job estimates based on Valley's average of 20+ jobs/acre



1. MVIC, 7 acres > 150 jobs
2. MVIC, 2 acres > 40 jobs
3. MVIC 4 acres > 80 jobs
4. DMV, 3 acres > 60 jobs
5. City DPW waterfront lot > 100 jobs
6. Private 24 acres waterfront > 480 jobs
7. 10 acres of buildings, land > 200 + jobs
8. City MURF waterfront facility > 100 jobs
9. City DPW waterfront lot > 100 jobs
10. City/RACM waterfront lots > 200 jobs
11. Waterfront lot > 120 jobs
12. 9 acre lot > 180 jobs
13. M7 Water Campus, 15 acres > 300 jobs

– These parcels, nearly 100 acres, could yield 1,950 new jobs.

The Menomonee Valley is home to more than ***150 businesses*** and more than ***14,000 employees***. Redevelopments in the last 10 years created 4,700 new jobs at a rate of 20 jobs/acre. Current development opportunities would yield ***1,950 additional jobs*** at this rate. The Valley is also home to top WI tourist destinations and receives more than ***10 million tourist visits annually***.

I-94 East-West Corridor Study
Indirect and Cumulative Effects
Meeting Minutes for Stakeholder Interviews

Meeting	Menomonee Valley Partners
Date, Time	July 10, 2:00 p.m.
Location	Teleconference
Attendees	Corey Zetts, MVP Dobra Payant, WisDOT Jason Lynch, WisDOT Carolyn Seboe, HNTB

Meeting Summary

A conference call was held with Corey Zetts from the MVP as part of the ICE process to follow up on MVPs thoughts on land use and development effects related to the latest Modernization Alternatives for I-94. Dobra Payant, WisDOT, Jason Lynch, WisDOT and Carolyn Seboe, HNTB were present from the study team. This meeting was needed because stakeholder outreach conducted for the ICE analysis in 2013 did not include the On-Alignment option. Below is a summary of key points Corey stated on the phone call:

Summary

MVP has been meeting with businesses in the valley and recently held a meeting with about 15 of the businesses that would likely be most impacted by the changes to the freeway (businesses that are closest to the freeway and/or businesses that have large properties in the valley). Feedback has been really mixed on the two alternatives, Off-Alignment and On-Alignment, and no consensus has been achieved. Businesses are most concerned about the ease of access to businesses in the valley (both on the freeway and within the valley) and the long-term impression the transportation infrastructure will have on the valley. The On-alignment alternative would have the least impact on the character of the valley, but consolidated access at 27th Street may provide some intuitive traffic benefits. If the Off-Alignment option is selected businesses in the valley feel that wayfinding signage from the interchange would be critical and that context sensitive solutions would be necessary to minimize the "tunnel-like" feeling the bridge and ramp would have over the entrance to the valley on St. Paul.

Access Effects

Corey said the consolidated access at 27th Street under the off-alignment alternative would make it easier for customers and suppliers to get to the valley from the freeway, but it could be more challenging for them to find their destinations within the valley after they've exited at 27th Street. They understand a consolidated 27th Street interchange is intuitive from a traffic standpoint, but will it be good for the valley? Wayfinding signage will be critical to get people to their destinations once they've exited the freeway.

The situation is reversed for the On-Alignment Alternative. It would be more challenging for people to find the exit along the freeway, but it is easier to reach their destination within the valley after they've exited due to the easy connection between 25th Street and St. Paul Avenue. Potawatomi Bingo Casino is the strongest advocate for maintaining access at 25th Street. They have a lot of first time visitors, have made substantial investments recently and direct their visitors and tour buses to this ramp.

Encroachment Effects

Valley businesses are concerned the bridge structure and elevated ramps proposed under the Off-Alignment option would affect the character of the valley and affect people's impressions of the valley. They are very

concerned about the length of the bridge and ramp that would go over St. Paul Avenue and that this would create a dark tunnel-like entrance to the valley. This could create a bad first impression of the valley for visitors and affect its economic development potential, especially along the St. Paul Avenue corridor. Corey said businesses are concerned undevelopable remnant parcels would become problem parcels (attract nuisance activities) and subsequently property values would go down and it would be hard to recruit employees and customers. Corey said if this alternative is selected, it would require context sensitive solutions so people do not feel like they are going through a tunnel.

Corey said valley businesses like that the On-Alignment Alternative would have less impact on the character of the valley and it would preserve the most developable land. It also would retain more businesses and it would retain more future development sites such as the DMV.

Travel Lanes

Corey said no businesses have expressed concerns about congestion. They are mostly concerned about local access and how the infrastructure would affect people's impressions of the valley. People have been living with the congestion for so long that they have learned how to deal with it.

Notes prepared by Carolyn Seboe, HNTB

I-94 East-West Corridor Study
Indirect and Cumulative Effects
Meeting Minutes for Stakeholder Interviews

Meeting	City of Milwaukee, Department of City Development
Date, Time	February 6, 3:00 p.m.
Location	809 N Broadway, Milwaukee, WI
Attendees	Dobra Payant, WisDOT Keegan Dole, WisDOT Carolyn Seboe, HNTB Kathleen Matson, HNTB Vanessa Koster, DCD Bob Harris, DCD Maria Pandazi, DCD Mike Maierle, DCD

Meeting Summary

A meeting was conducted with staff from the city of Milwaukee, Department of City Development (DCD) to discuss indirect and cumulative effects for the Environmental Impact Statement being prepared for the I-94 East-West Corridor Study. DCD staff was not familiar with the alternatives being proposed. Therefore, a large portion of the meeting was spent presenting the alternatives.

The following is a summary of the comments that were made by DCD staff at the meeting:

- East Segment
    - An updated plan for the Menomonee Valley has been initiated. Bob Harris and Maria Pandazi are overseeing the planning process.
    - 35th Street closed alternative – DCD staff felt this alternative has the least property impacts, but they were concerned about how the closure would affect businesses in the Menomonee Valley and trucks that rely on this access. They also mentioned concern about access to Marquette High School.
    - Split Diamond/frontage roads – This is a compromise alternative – doesn't fix the curve in the mainline and requires less land than the CD road alternative, which shows the curve fixed. DCD was concerned about impacts to St. Paul. The Menomonee Valley Plan is being updated and St. Paul as a gateway corridor that will be a focus of the updated plan. DCD staff said it may be ok if St. Paul does not connect under the freeway, but a connection to 25th Street should be maintained. DCD would like to better understand the visual impacts of the alternative.
    - CD Roads – DCD staff felt this alternative has more property impacts on the south side. They acknowledged that more land could become available on the north side and discussed the potential of filling the land to the north to make it developable. DCD staff said it might not be that much more impact to fix the mainline curve because the other alternatives that don't fix the curve may create remnant parcels that are undevelopable.
    - If frontage roads or CD roads are used, DCD is concerned about what would happen to trucks if they miss the exit.
    - DCD asked what concerns Badger Truck has expressed.
    - Properties along St. Paul are experiencing problems with flooding. The city got a grant to conduct a Conditional Letter of Map Revision with FEMA.
    - The Menomonee Valley sustainability principles should be worked into the freeway project.
    - DCD expressed concern about how parcels (or remnant parcels) along Greeves Street would be accessed if the street is closed.

    - The Avenues West Neighborhood has a redevelopment plan that is available on the city's website. It discusses improving the commercial corridor along 27th street as well as other recommendations.
- DCD had questions about frontage roads and if they would feel/function like local roads. They asked if driveways would be allowed and if bike lanes could be included. Kathleen said that has not been decided and would likely depend on the amount of traffic. DCD could see having one side of the frontage road function as a mobility transition and the other side has a local feel with local access.
- CSD will be important.
- DCD staff said there is a lot of city and county traffic east of the Zoo Interchange and there may be some benefit to separating local and regional traffic in this corridor.
- DCD asked how stormwater will be handled. The project team said WisDOT has regulations that must be followed and is coordinating with MMSD. A team is dedicated to stormwater improvements. DCD said they would like to avoid ponds on remnant parcels.
- Stadium Interchange
    - The Washington Park Plan recommends filing in US 41 to reconnect the neighborhoods.
    - US 41 really serves as an arterial, not a highway.
    - US 41 has local access issues. Less infrastructure is needed. Let Miller Parkway be a local street to serve local businesses and institutions.
    - Shift the interchange south to minimize the impact to the Story Hill neighborhood.
    - DCD asked for some examples of existing single point intersections.
    - The area between 35th and Hawley is a no man's land for pedestrians. No streets or bridges that provide access across the freeway. The Near West Side Plan (under District 4) recommends pedestrian access under the freeway.
- Cemetery options were reviewed
    - DCD asked about the length of double deck section. Project team said latest estimate is about 3,000 feet.
    - How will the double deck affect neighborhoods? Will houses be next to a wall?
- West segment
    - See the West Side Area Plan for this area
    - No development plans in this area.
    - DCD is very concerned about impacts to neighborhoods. The freeway will get closer to houses. Homes will be right next to noise barriers.

Notes prepared by Carolyn Seboe, HNTB

I-94 East-West Corridor Study
Indirect and Cumulative Effects
Meeting Minutes for Stakeholder Interviews

Meeting	Alderman Murphy, District 10 and Jeff Polenske, DPW
Date, Time	February 7, 10:00 a.m.
Location	200 E Wells Street, Milwaukee, WI
Attendees	Dobra Payant, WisDOT Carolyn Seboe, HNTB Beth Foy Michael Murphy, District 10 Alderman Jeff Polenske, Milwaukee DPW

Meeting Summary

A meeting was conducted with Michael Murphy, District 10 Alderman, and Jeff Polenske, DPW, to discuss indirect and cumulative effects for the Environmental Impact Statement being prepared for the I-94 East-West Corridor Study. Both had previously seen the alternatives for the project.

The following is a summary of the comments that were at the meeting:

- From a cumulative standpoint, the cost of the Zoo Interchange and I-94 N-S projects will decrease the amount of money that is available for other transportation projects.
- The state's investment in only highways provides no other options for people in the city. The only option they have is to purchase a vehicle. Milwaukee residents are low income and have to spend a greater percentage of their income on transportation to get to jobs. This continues the pattern of hyper-segregation of the community. Zoning in outlying areas does not permit affordable housing.
- Highway capacity expansion will alleviate traffic in the short term, but in the long term will induce traffic and the traffic problem won't be solved because there are no other options.
- Increased traffic will increase pollution. The city already has a high asthma rate.
- Highway expansion will devalue properties from increased noise and light. The Alderman is already hearing from people looking to sell their homes, but realtors are concerned about the future highway improvements and their ability to sell homes. Also, he received a letter from a couple from Chicago that purchased a home on 50th Street and they want to know if they just made a huge mistake.
- The alderman is concerned about noise walls and the shadow effect and noise going over the barrier.
- Property takings decrease property taxes. Property owners are compensated, but the city is not.
- Construction – increases traffic in residential neighborhoods, business and schools impacted by closures. Cumulative effect on area from construction impacts for Zoo and I-94.
- Marquette High School is concerned about their access at 35th Street. Their student body draws from a regional area and this is an important access point.
- The state has chosen to invest in one mode of transportation. This has regional economic implications. The population is aging and workers need to be replaced. When the economy rebounds we will have a worker shortage. (supply of labor in Milwaukee can't get to jobs in outlying areas).
- Increased capacity on highways will increase operations and maintenance costs, which will decrease money available for other means.
- The local street network has limited ability to accommodate more vehicular capacity. The way to make streets increase capacity is with transit. Simply widening the highway won't help.
- Employment is a regional issue. To not have a regional organization to discuss transit is detrimental to the region. It is hard to get people to jobs. Employers have to provide the service of transporting employees. This is a cost that most employers did not expect; they expect government to provide transit. This trend will continue to increase.

- When the alderman was asked about the different alternatives. He said impacts go up or down depending on the alternative. Alternatives that have a wider footprint have more encroachment impacts to neighborhoods. Alternatives that elevate the highway have a greater impact from increased pollution and noise.
- US 41 – there is broad support for the conversion of US 41 to a boulevard. A service interchange is consistent with this the long term vision of converting US 41 to a boulevard.
- The corridor does have challenges with safety and has serious design issues that need to be fixed.
- Alderman Murphy expressed concern about WisDOT using the same consultant for the EIS and the design. He felt this could encourage recommending alternatives that require more infrastructure.
- Miller Brewing has 240 trucks per day. Major employers in this area.
- The 44th street connection – a more substantial street could impact the Bluemound and Story Hill neighborhoods.
- No major redevelopment projects on the west side.
- Billboards – if billboards are acquired for the project, don't increase number along the corridor when WisDOT looks to replace. The digital billboards create light pollution for neighborhoods. Some concerns about relocating billboards on Zoo Interchange project.
- Frontage Roads – impacts will depend on acquisitions and if traffic and backups are pushed into the neighborhoods.
- Mitchell Blvd – this is a dangerous access point. Some may be ok with closing this access point.
- Hawley Road – has problems with wrong way driving and drunk driving.
- The city has 40,000 people driving without a license.
- I-94 construction at end of Zoo Interchange construction. This will be 15+ years of construction or more if Zoo construction is extended. Will need traffic mitigation.
- 68th and Fairview Avenue – already a dangerous intersection. Traffic will increase during construction.
- 77th Street and Blue Mound Road businesses – employees couldn't get out on Blue Mound Road during the I-94 resurfacing project. City allowed businesses to have another access point, but was in residential neighborhood.
- Concerned about parking along Blue Mound Rd during construction. Businesses need on-street parking.
- Traffic mitigation – WisDOT makes road improvement traffic mitigation for the long term. Consider transit during construction, but maintain transit for the long-term after construction.
- As a result of the project, there will be less money available for local streets and transit. This is setting the state up with problems for workers and employers.
- Merrill Park – redoing park. Very popular playground for children. Concerned about traffic on 35th Street-doesn't want to see any negative impacts to park.

Notes prepared by Carolyn Seboe, HNTB

I-94 East-West Corridor Study
Indirect and Cumulative Effects
Meeting Minutes for Stakeholder Interviews

Meeting	Layton Boulevard West Neighbors (LBWN)
Date, Time	February 7, 1:00 p.m.
Location	Sacred Heart Center, 1545 S. Layton Blvd, Milwaukee, WI
Attendees	Dobra Payant, WisDOT Jake Livermore, WisDOT Carolyn Seboe, HNTB Brad Heimlich, CH2M Hill Charlotte John-Gomez, Executive Director LBWN

Meeting Summary

A meeting was conducted with Charlotte John-Gomez, LBWN Executive Director, to discuss indirect and cumulative effects for the Environmental Impact Statement being prepared for the I-94 East-West Corridor Study. The project team has already met with LBWN at previous meetings to go over the alternatives. Therefore, Charlotte did not feel we needed to review the alternatives at this meeting.

The following is a summary of the comments that were made by Charlotte:

- Layton Boulevard West is generally bounded by 27th Street (east) and Miller Parkway (west) and Lincoln Avenue (south) and Pierce Street (north). It incorporates three Milwaukee neighborhoods: Silver City, Burnham Park, and Layton Park.
- As part of the Zilber Neighborhood Initiative, LBWN completed a Quality of Life Planning process. (A catalytic project map was provided and is available at: http://lbwn.org/
- The Muskego Way neighborhood (adjacent to LBWN – 27th to 16th streets and Greenfield to Becher) is initiating a neighborhood plan with the Local Initiatives Support Corporation (LISC) through a grant from the Northwestern Mutual Foundation.
- LBWN partners with Clarke Square neighborhood (west of 27th between Pierce and Greenfield) who also has a Zilber Neighborhood Quality of Life Plan.
- The Near South Side Area Plan, which includes LBWN was approved by the Milwaukee Common Council in 2009.
- Valley Passage project completed (A partnership between the WisDOT, WDNR, the city of Milwaukee, Menomonee Valley Partners, and Urban Ecology Center - re-establishes a connection between Milwaukee's Near South Side neighborhood and the Menomonee Valley)
    - Serves as a trail head for the Hank Aaron State Trail
    - Allows residents to walk to work to thousands of jobs in the Menomonee Valley.
    - Provides access to recreation amenities and natural resources in the Valley.
- Silver City Townhomes – completed in 2010 includes 20 affordable, rent to own housing units near the intersection of the 35th Street viaduct and W. Pierce St.
- Pierce Street – seeing new investment as a result of Menomonee Valley and the Valley Passage.
    - Urban Ecology Center located next to Valley Passage.
    - Wisconsin Bicycle Federation opened office at 3618 W. Pierce Street.
    - Underutilized corridor, looking to repurpose.

  - Envision more green businesses and sustainable products (i.e. greenhouses, whole sale herbs) providing a back production, storefront retail and upstairs housing setting. (WHEDA Transform Milwaukee, goal to create jobs)
  - LBWN and South Side Organizing Committee are working with landlords to improve buildings
- Encouraging more walking and biking in neighborhood
  - National Avenue – popular bike route
  - Greenfield Avenue – LBWN talking to Milwaukee DPW about adding bike lanes
  - Layton Boulevard – road improvement funded between National and Oklahoma, considering bike accommodations
  - Mobile bike hub – LBWN in partnership with the Wisconsin Bicycle Federation and LISC are piloting a new bike trailer project that will ride around the neighborhood and help residents repair bikes and conduct bike repair workshops.
  - Two new bike businesses on Pierce
  - Hank Aaron State Trail
- National Avenue – main commercial district within neighborhood
- Lincoln Avenue – most established commercial corridor, some vacancies, but many businesses have stayed for generations.
- Miller Park Way – provides access to national retail/big box retail. New Wal-Mart hiring 250 employees.
- Silver City Main Street (W. National Avenue between 31st Street and Miller Parkway)
  - Composed of a mixture of businesses at various stages of development
  - Known for its international dining experiences
  - Includes retail, restaurants and commercial services.
  - Turnover of businesses is decreasing (since recession) but district is still fragile.
- 35th and National – LBWN purchased and renovated vacant building. Now includes first floor retail and two upstairs apartments. Intersection important Gateway for Silver City businesses.
- Rent-to-own initiative – 24 renovated and energy efficient homes to help reduce the number of foreclosed homes in neighborhood and stabilize housing market.
- Greenfield Avenue - Has many vacant buildings, has a few retail businesses between 35th and 39th streets, but it is not a retail corridor. LBWN is focusing on new investment in the corridor to improve its image.
- Burnham Park – Highly used park. LBWN is raising money to improve park.
- Frank Lloyd Wright American System Built Homes – Six FLW homes originally designed as affordable homes for moderate-income families are located at the 2700 block of Burnham Street. Some of the homes are owned by the Frank Lloyd Wright® Wisconsin Heritage Tourism Program, Inc. One home has been turned into a museum.
- Burnham and 31st – received grant for art feature
- El Rey Superstore– local grocery store at northwest corner of Burnham and 35th Street, number one destination and anchor for neighborhood.
- Maria Linden Assisted Living Apartments – new 60 unit independent and assisted senior apartment building on the campus of the School Sisters of St. Francis. Located at southwest corner of Greenfield and Historic Layton Boulevard. Just started to lease units.
- The neighborhood is starting to see a lot of momentum. They are seeing the “fruits of the seeds they planted” over many years. People are seeing the area as a better neighborhood, Place to eat, start a business and live. They will be starting a marketing campaign to reinforce this.
- If access to the freeway is restricted at 35th Street, it would slow down the momentum. 35th Street provides direct access to businesses; 27th Street is less direct and requires more maneuvers.
- Improvements to the 27th Street would help improvements along Pierce and National by encouraging more traffic to area.

- People from region are coming to the area.
- They are concerned about truck traffic on 27th Street.
- Development constraints include no empty parcels; people's perceptions; some existing residents don't want change; It is hard to get financing for market rate housing. City's zoning is sometimes restrictive, but can make it work.
- The demographics of the neighborhood are changing. Families and professionals are buying homes. This is changing the demand for housing and businesses.
- LBWN can provide data to show changing demographics.
- Existing residential base
    - Have 62 foreclosures, plus 160 in courts; Area was targeted with high cost mortgages
    - Have high owner occupancy rate – 88% for single family homes and 60% for duplexes.
    - Have demand for housing – investors are offering cash for foreclosures. LBWN is trying to avoid this by purchasing foreclosure properties so they can maintain own occupancy rate.
    - House on Layton sold for $170,000 – showed demand for higher end housing
    - LBWN buys foreclosed homes and sells for about $90,000. They get multiple offers.
    - Property values are increasing.
- Layton Boulevard is a boundary for the neighborhood. People neighborhoods to the east inspire to move west of Layton Blvd. People rent east of Layton Blvd and own west of Layton Blvd.
- The Latino population increased 42% in 2000 to 66% in 2010.
- Charlotte expressed very strongly that access to freeway via 35th Street is a huge amenity for neighborhood. Much progress has been made, but neighborhood is still fragile. New homeowners when asked why they moved to the area often site access to freeway allows them to get places easily. If the access is removed, the amenity will be taken away and LBWN is concerned the neighborhood would revert to the early 1990's.
- If the no action alternative is selected, it would have no effect on neighborhood. People would continue to access neighborhood.
- Charlotte said 35th Street interchange serves impulse trips. She does not prefer interchange alternatives that make access less direct to the 35th like the frontage roads and CD roads. She doesn't want people to have to think ahead. Frontage roads at 26th and 27th streets would be ok, serves more people going home and less businesses. Charlotte would like to keep access as is.
- For the ICE focus group meeting, Charlotte recommended Clark Square Neighborhood, Urban Ecology Center and Sandy Foller from the Domes.

See figure on next page that shows development trends in LBWN.

Notes prepared by Carolyn Seboe, HNTB


Maintaining access at 35th Street very important to LBWN and local businesses
Secondary access used to access residences
Valley Passage – link to Men Valley jobs and rec, brings employees to LBWN businesses
Silver City Townhomes
Pierce Street - envision suppliers of sustainable businesses
Urban Ecology Center
LBWN renovated corner building
Silver City Main Street District (international dinning destination)
Maria Linden Assisted Living
Greenfield – LBWN working to improve image; not retail corridor
High owner-occupancy rate west of 27th Street.
El Rey
Fundraising to improve park
Frank Lloyd Wright homes.
Lincoln – Most established commercial corridor
Avenues West Neighborhood
Hilltoppers Neighborhood
Miller Park
Silver City Neighborhood
Walmart
Burnham Park Neighborhood
Historic Layton Blvd District
Menards
Layton Park Neighborhood
GE Healthcare
Merrill Park
Burnham Park
Rogers Park
St Paul Ave
Vernon Ave
National Ave
Mineral St
Scott St
Pierce St
Mitchell St
Burnham St
Roger St
Becher St
Lincoln Ave
Greenfield Ave
Hayes Ave
35th St
30th St
38th St
27th St
Layton Blvd

I-94 East-West Corridor Study
Indirect and Cumulative Effects
Meeting Minutes for Stakeholder Interviews

Meeting	City of West Milwaukee
Date, Time	February 14, 10 a.m.
Location	200 E Wells Street, Milwaukee, WI
Attendees	Dobra Payant, WisDOT Jake Livermore, WisDOT Charlie Webb, CH2M Hill Carolyn Seboe, HNTB Len Roecker, Village Engineer Kim Egan, Village Administrator Ron Hayward, Village President Jim Stenzel, Superintendent of Public Works

Meeting Summary

A meeting was conducted with representatives from the village of West Milwaukee to discuss indirect and cumulative effects for the Environmental Impact Statement being prepared for the I-94 East-West Corridor Study. An overview of the project and the proposed alternatives was presented.

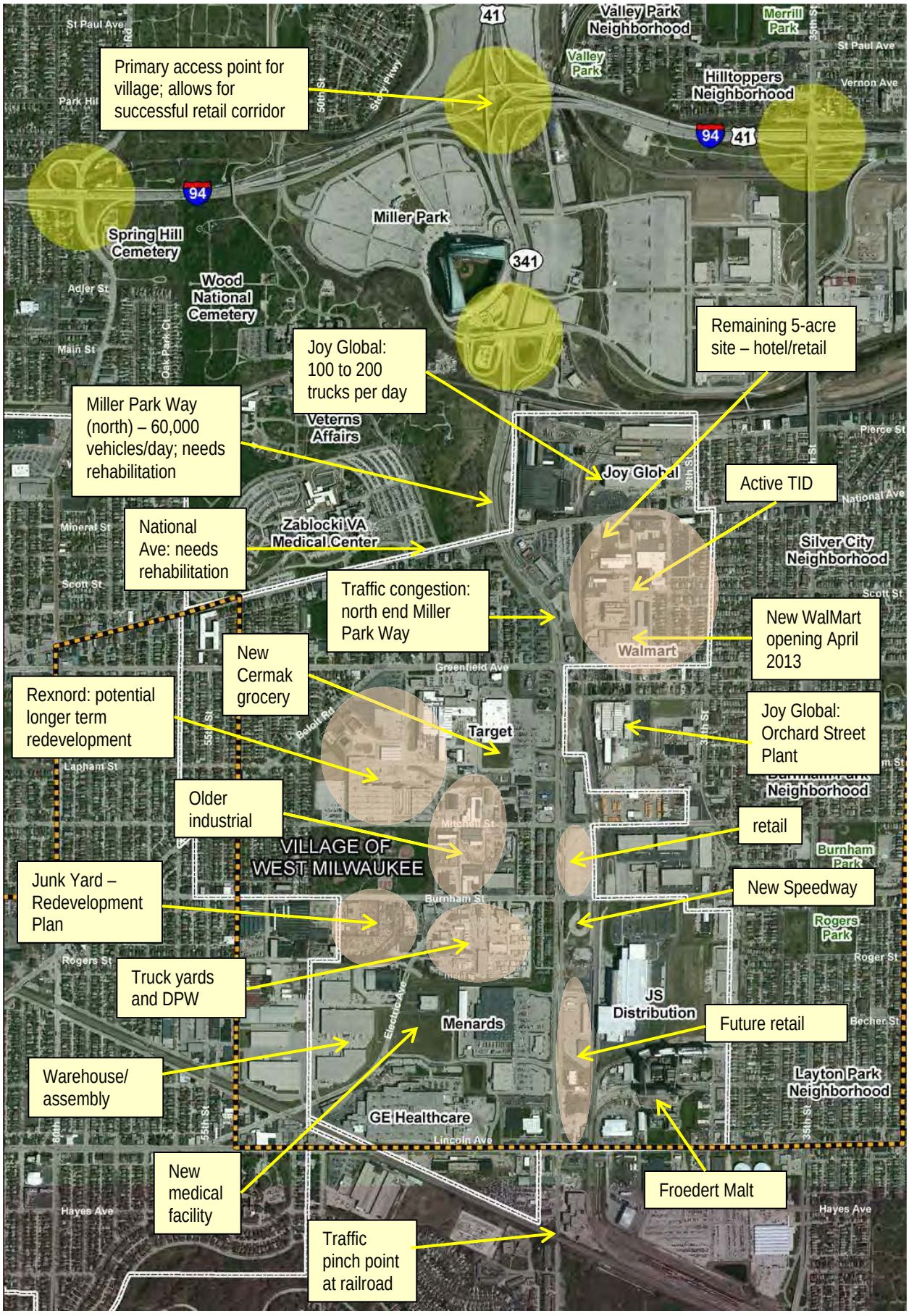
The following is a summary of the comments that were made at the meeting:

- West Milwaukee is a small community that has 719 acres of land. According to the U.S. Census West Milwaukee had 4,200 residents in 2010. A national chain retail corridor has emerged in West Milwaukee along the Miller Park Way corridor as former industrial lands were redeveloped.
- West Milwaukee asked if the team has received feedback from the Brewers. Charlie said they like pieces of different alternatives, but haven't expressed a preference yet. They want to balance the footprint of the freeway with access needs.
- The village has benefited from good freeway access. It is the reason why retailers are building in the Miller Park Way corridor. For this reason, the village wants to maintain the ease of access to Miller Park Way. How the access is changed or perceived by the public is important.
- The freeway work WisDOT has completed is well received once it is complete.
- US 41 and Miller Park Way access points are also important for Wauwatosa and Milwaukee's neighborhoods.
- The village's own redevelopment success has caused traffic impacts in West Milwaukee. Miller Park Way has 60,000 cars/day on the north end near National Avenue and drops as you go south. More development is still planned and it will continue to exasperate the traffic issues. The village will consider increasing capacity of the roadway in the future.
- Miller Park Way is the backbone through the village. They want to make sure Miller Park Way is not labeled as a congested corridor because it will make it less desirable. Many east/west corridors also feed into Miller Park Way.
- Concerned about traffic diversion during construction and how that increased traffic will impact the area given that it already has existing traffic problems.
- The village prefers options that maintain free flow traffic as much as possible. They want to avoid traffic backups into the village. They know how to deal with event traffic (Miller Park, State Fair), but it will be even more challenging to manage event traffic as traffic increases especially during construction of the freeway.

- Miller Park Way south of National Avenue will be 30 years old in 2018 and the village wants to work with WisDOT on rehabilitating the road. It is starting to deteriorate. West Milwaukee will be applying to WisDOT for Surface Transportation Program funds. It will be important to keep Miller Park Way in good shape to help with construction traffic. The village will also apply for Surface Transportation Program funds for Greenfield Avenue. It is a primary east/west corridor that is really showing its age.
- The village is concerned that if 35th Street is closed it will increase traffic on Miller Park Way and National Avenue.
- Joy Global (north of national between Miller Park Way and 39th Street) outgoing deliveries used 35th Street to access freeway, but since the city of Milwaukee installed streetscape planters at 35th and National, the trucks can't make the turn.. They generate anywhere between 100 and 200 truck trips per day along Miller Park Way. Joy Global also has a facility (Orchard Street Plant) to the south of Greenfield between 38th Street and Miller Park Way. It is in the city of Milwaukee.
- The VA is adding housing for families of soldiers to the north of National and west of Miller Park Way. The housing will be accessible from within VA property only. VA is a big institution and feels the land should be reserved for veteran uses only. West Milwaukee talked to them some years ago about expanding National Avenue and the VA did not want them to touch VA land.
- When asked about freeway capacity increases, the village representatives said they expect freeway capacity enhancements to benefit the village by creating less congestion. Increasing I-94 from six to eight lanes will allow for better traffic operations and continue the ease of access to the village. More capacity on the freeway would also help keep traffic off local streets.
- Miller Park Way has pinch points on the north and south ends (at Lincoln by railroad bridge). The village would like to see the traffic issue on the south fixed, but residents in Milwaukee's Jackson Park neighborhood are concerned it will create more traffic in their neighborhood.
- The traffic has been good for retail development, but it has created a local traffic problem. Miller Park Way is second to Bluemound Road for traffic volumes.
- The village has a 2010 Comprehensive Plan. The village's land use plan shows predominately retail/commercial uses along the Miller Park Way corridor. This includes retail and service oriented commercial establishments such as medical offices. There is no demand for office users. No plans for new residential areas.
- Most of the retail sites along Miller Park Way are developed. It consists primarily of national chain retail stores including large big box retailers like Menards and Target and smaller retail facilities such as restaurants, banks and gas stations. A new Cermak Fresh Market grocery store opened in 2012 to the south of Target. A new Speedway gas station is planned at the southeast intersection of Burnham and Miller Park Way. Additional retail is planned on the adjacent northeast corner.
- The village has an active TIF district along the 41st Street corridor bound by Greenfield, the railroad, National and 39th Street. A new Wal Mart will be opening April 2013 at the northeast intersection of Greenfield and Miller Park Way (east of railroad). It is a 15-acre development site. A 5-acre site (northwest corner) remains in this area and it is planned for retail and hotel uses.
- If WisDOT selects the no action alternative, the village sees no impact as they would maintain existing freeway access. However, they are concerned the no action alternative would not address congestion on the north end of the village/Miller Park Way, which could make it more difficult for them to implement their land use plans in the long term.
- West Milwaukee asked about the cemetery section and expressed concerns about options that have little/no shoulder and how safe that would be. The team said it is not ideal from a safety perspective.
- No changes are anticipated to the Canal Street interchange. The village feels this interchange operates well and it helps get people to events and downtown.
- The village has a few small triangle parks and one county park (West Milwaukee Park). No other natural or cultural resources.
- In terms of development constraints, the village said they are running out of developable sites. There is a strong market for retail development when land is available. The traffic volumes and residential densities make it an attractive corridor for retail development.

- The village has some remaining large manufacturing facilities (GE, Rexnord, Joy Global, Froedert Malt). It is difficult to determine their future plans and how their workforce needs will change over time. At any point in time, one of these facilities could leave and new redevelopment areas may evolve.
- A redevelopment plan is being prepare for the area known as the junk yards. It is an approximately 10 acre area south of Burnham and west of Electric Ave
- The village uses the B5 Planned Unit Development zoning code for most new development. It provides the village with flexibility for uses.
- The village gets calls from developers looking for land for residential development, but they do not have any available residential parcels.
- Discussion about the project schedule. The team confirmed construction will occur after the Zoo Interchange project.
- Improved traffic operations on the north end will benefit the village.

Notes prepared by Carolyn Seboe, HNTB


Primary access point for village; allows for successful retail corridor
Miller Park Way (north) – 60,000 vehicles/day; needs rehabilitation
National Ave: needs rehabilitation
Joy Global: 100 to 200 trucks per day
Remaining 5-acre site – hotel/retail
Active TID
Traffic congestion: north end Miller Park Way
New WalMart opening April 2013
New Cermak grocery
Rexnord: potential longer term redevelopment
Joy Global: Orchard Street Plant
Older industrial
retail
Junk Yard – Redevelopment Plan
New Speedway
Truck yards and DPW
Future retail
Warehouse/ assembly
New medical facility
Froedert Malt
Traffic pinch point at railroad
VILLAGE OF WEST MILWAUKEE
Miller Park
Spring Hill Cemetery
Wood National Cemetery
Zablocki VA Medical Center
Veterns Affairs
Joy Global
Walmart
Target
Menards
JS Distribution
GE Healthcare
Valley Park Neighborhood
Hilltoppers Neighborhood
Silver City Neighborhood
Layton Park Neighborhood
Burnham Park Neighborhood
Merrill Park
Valley Park
Burnham Park
Rogers Park
St Paul Ave
Vernon Ave
Pierce St
National Ave
Scott St
Greenfield Ave
Mitchell St
Burnham St
Roger St
Becher St
Lincoln Ave
Hayes Ave
Lapham St
Rogers St
Mineral St
Adler St
Main St
Park Hill
Electric Ave
41
94
341

I-94 East-West Corridor Study
Indirect and Cumulative Effects
Meeting Minutes for Stakeholder Interviews

Meeting	African American Chamber of Commerce (AACC)
Date, Time	February 25, 3:00 p.m.
Location	Prism Technical, 6114 West Capitol, Suite 200, Milwaukee, WI
Attendees	Keegan Dole, WisDOT Carrie Cooper, WisDOT Charlie Webb, CH2M Hill Carolyn Seboe, HNTB Dr. Eve M. Hall, AACC, President/CEO Randy Crump, AACC, Chairman of the Board Sheree Dallas Branch/ABRAZO

Meeting Summary

A meeting was conducted with the AACC to discuss indirect and cumulative effects for the Environmental Impact Statements being prepared for the I-94 East-West Corridor Study and I-43 North-South Corridor Study. After introductions, an overview of both studies was provided and the alternatives that are being evaluated were discussed.

The following is a summary of the comments that were made by Dr. Hall and Mr. Crump at the meeting:

- The 35th Street interchange is dangerous now especially from US 41. Dr. Hall grew up in this area.
- Discussed how the freeway development process compares today to when the freeways were originally constructed. The team discussed that today we have more laws that require public input and a process that requires the evaluation of alternatives and disclosure of impacts. Dr. Hall's childhood home in Merrill Park had previously been moved from a different location to accommodate the construction of I-94.
- Dr. Hall provided an overview of the AACC. They have been in operation since 1993 and they focus on building minority, particularly African American, businesses. They have 150 members that includes minority owned businesses, nonprofit partners and corporate partners. They primarily represent businesses in the Milwaukee area, but they are asked to get involved in other communities throughout the state including Kenosha, Racine and Green Bay. Some specific initiatives include developing a revolving loan program; creating an African American professional contractors business list that identifies quality businesses; organizing a women's business group; and promoting the next generation of minority businesses. The AACC has been through some transitions in recent years and they are working to rebuild their credibility in the community so they can help influence policies that affect their members.
- Most African American businesses are on the north side of Milwaukee.
- The North Milwaukee State Bank partners with WisDOT and Chambers of Commerce to offer micro loan funds. This program has been successful at helping local minority contractors participate in transportation construction employment. WisDOT guarantees the funds. The Chamber helps process the smaller deals that banks typically won't consider due to processing costs/small loan amount.
- The I-94 and I-43 corridors are important for African American businesses. These are the access points they use to get to downtown, Brookfield, Madison. They experience problems with safety and traffic.
- Concerned about access and traffic during construction. Need to keep businesses informed about construction activities so they can plan accordingly.
- Many of the local streets already have access and congestion issues. This will get worse when the freeways are under construction. An example is the intersection of Port Washington Road and Silver Spring Road. It is hard to access some of the businesses and this discourages people from using the businesses.
- In terms of capacity expansion, the AACC feels a more balanced transportation approach is needed that incorporates transit. They are concerned about highway capacity expansion stretching development out

further. Seems like people are wasting so much gas and time driving back and forth along these corridors in single occupancy vehicles. Need to incorporate transit. Other communities in the country are embracing transit.

- It seems that transportation is built to get people out of the city. Miller Park is an example. It provides and easy in/out of the ball park, but all the benefit is contained within Miller Park, the benefit is not shared with the regional economy.
- The Milwaukee area is separated between the haves and have nots and this is affecting major corporations in the region. The president/CEO of SC Johnson stated this concern in a speech.
- The AACC is not against freeways, but a more balanced approach that includes transit would be better for the regional economy.
- The frontage roads along I-94 may be a good solution to help keep all access points open and help make the access points more easily identifiable. Some of the existing access points are confusing. The 27th Street-25th Street interchange is an example.
- The 27th and Wisconsin area is prime for redevelopment. Maintaining freeway access will be important.
- Traffic operations along the 27th Street corridor north of I-94 are poor. If access is consolidated at 27th Street, how will this affect traffic on the local road? The team said local road impacts still need to be studied.
- It is important for the project team to talk with the local neighborhoods to find out what is important. An example is how important the ACE Hardware store in Glendale is to the area.
- The no action alternative does not seem likely because something needs to be done to address the freeway's deficiencies. The replace in kind alternative would be ok if it addressed some of the major safety and access issues.
- A better approach that is better for our region will include a more balance transportation system that incorporates commuter rail and transit. We need to be able to function within our community (access points), but have touch points outside the city to make sure we connect people with jobs.
- People who do not have cars are not able to access suburban job markets because there is a lack of transit. This same worker in other communities (Washington DC for example) has access to transit and can access jobs.
- The Chamber will be invited to the focus group meeting. They will send a staff member or recommend someone appropriate.

Notes prepared by Carolyn Seboe, HNTB

I-94 East-West Corridor Study
Indirect and Cumulative Effects
Meeting Minutes for Stakeholder Interviews

Meeting	Milwaukee County
Date, Time	February 28, 1:30 p.m.
Location	
Attendees	Dobra Payant, WisDOT Carrie Cooper, WisDOT Charlie Webb, CH2M Hill Carolyn Seboe, HNTB Clark Wantoch, Milwaukee County, Director of Highway Operations Aziz Aleiow, Milwaukee County

Meeting Summary

A meeting was conducted with Milwaukee County to discuss indirect and cumulative effects for the Environmental Impact Statements being prepared for the I-94 East-West Corridor Study and I-43 North-South Corridor Study. After introductions, an overview of both studies was provided and the alternatives that are being evaluated were discussed.

The following is a summary of the comments that were made at the meeting:

- Clark oversees the county's highway projects and maintenance.
- Clark spoke with Brian Dranzik before the meeting to find out if he has any concerns about transit impacts. The county does not anticipate much impact to transit other than making sure bus access at park and ride lots is replaced if impacted by the project. Clark relayed that Brian also said the county would like to coordinate with WisDOT to include a bus only ramp at the Brown Deer Road interchange along I-43 to connect with the park and ride lot.
- The county contracts with the state for snow removal services for the freeways. Clark's main concern about the project is that the designs account for future maintenance and the safety of maintenance workers including lane width and areas to be plowed.
- The Milwaukee County parks department owns the county parkways and is responsible for their maintenance. Clark said we should check with the parks department as the Mitchell Park Blvd may be under their jurisdiction and the county may have some plans for the boulevard.

Notes prepared by Carolyn Seboe, HNTB

I-94 East-West Corridor Study
Indirect and Cumulative Effects
Meeting Minutes for Stakeholder Interviews

Meeting	City of Wauwatosa
Date, Time	March 4, 2013; 1:30 p.m.
Location	Wauwatosa City Hall, 7725 W. North Ave., Wauwatosa, WI 53213
Attendees	Dobra Payant, WisDOT Jake Livermore, WisDOT Carolyn Seboe, HNTB Charlie Webb, CH2M Hill Paulette Enders, Director, City Development Tammy Szudy, Planning & Zoning Manager

Meeting Summary

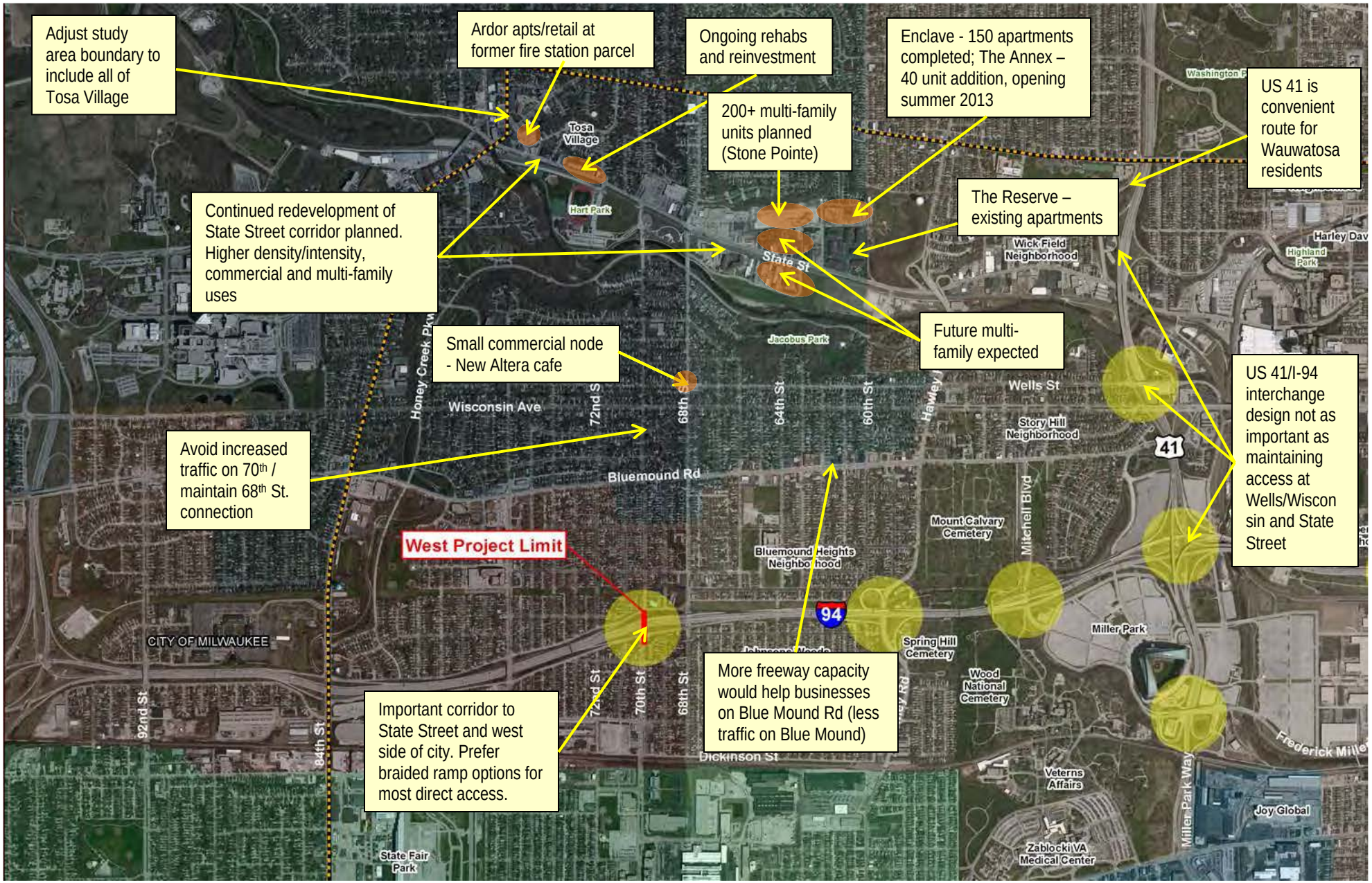
A meeting was conducted with staff from the city of Wauwatosa Development Department to discuss indirect and cumulative effects for the Environmental Impact Statement being prepared for the I-94 East-West Corridor Study. Charlie Webb provided an overview of the project. Then, Carolyn Seboe asked a series of questions related to indirect and cumulative effects.

The following is a summary of the comments that were at the meeting:

- Will Miller Park lose parking? Charlie explained that parking impacts vary based on the alternative, but overall there is likely to be a net loss of parking if a full system interchange is built.
- Many Wauwatosa residents especially on the east side of the city use US 41 and value its convenience. The interchange design (system versus service) at the Stadium Interchange will not affect the community as long as the local access connections at Wells/Wisconsin and State Street are maintained.
- The west side of the community will not be affected as long as the 68th/70th Street access is maintained.
- Keep access as simple as possible. Visitors may have trouble with frontage road and CD road options.
- The braided ramp alternative is preferable.
- A new Alterra café is being constructed at 68th and Wells.
- The city does not have any redevelopment plans along Blue Mound Road.
- The city comprehensive plan outlines a master plan for the State Street corridor and the Tosa Village. They expect continued redevelopment along this corridor with increasing densities and intensity of uses. Some specific projects/redevelopment parcles (existing and future) were pointed out on the map and include:
    - The remnant fire station parcel – redeveloped as four story apartment and retail building in Tosa Village at 1463 Underwood Ave.
    - Continued rehabilitation and investment of properties along State Street between 72nd and 74th Streets
    - The Enclave located south of Martin Drive between 60th and 62nd streets – completed 150 apartment units. Currently constructing the Enclave Annex that will expand the complex with a second 40 unit apartment building.
    - Stone Pointe – over 200 multi-family units planned – west of 62nd Street, north of Grede foundry.
    - Future multifamily anticipated north and south of State Street, west of 62nd Street as land becomes available. Developer interest on land to the south.
    - The Reserve – existing 230 unit apartment complex north of State Street and west of 60th Street.
- State Street is a truck route.

- Make sure the reconstruction of 68th/70th interchange does not push traffic north on 70th. Maintain connection to 68th Street to avoid impacting neighborhoods.
- The biggest constraints to development are limited available land, brownfields and flood plain issues. All redevelopment projects have a brownfield clean up component.
- The market demand is strong in Wauwatosa when sites are available. Developers keep finding new sites.
- The local policies are generally favorable to development, but they are careful to incorporate neighborhood concerns with development impacts. The city will use tax increment financing to encourage redevelopment. Redevelopment occurs only in non-residential areas.
- In terms of capacity expansion, the Wauwatosa staff said it would take the pressure off Blue Mound Road. When the highway is congested people will use Blue Mound Road. Commuter traffic typically not stopping at local businesses. People would use the freeway more if it had more capacity.
- The city of Wauwatosa staff is not concerned about capacity expansion sending businesses out farther west. Wauwatosa is desirable for development when sites are available. Capacity expansion would help maintain an important regional east/west connection.
- Adjust study area boundary to include all of the downtown area.
- If WisDOT chose the no action alternative, the city of Wauwatosa would not be affected much. However, the increasing congestion on the freeway would put more pressure on Blue Mound and Wisconsin Avenue.
- Some businesses are located along Blue Mound corridor. Most do not rely on commuter traffic except for some of the gas stations and fast food restaurants.
- Their biggest concern with the project will be disruption during construction.
- They said the community sensitive solutions process for the Zoo Interchange project helped the local stakeholders feel more comfortable about the project and provided an opportunity for them to learn about the project.
- They recommend inviting a member from the Village Business Improvement District and the Chamber of Commerce to attend the focus group meeting.

Notes prepared by Carolyn Seboe, HNTB


Adjust study area boundary to include all of Tosa Village
Ardor apts/retail at former fire station parcel
Ongoing rehabs and reinvestment
Enclave - 150 apartments completed; The Annex – 40 unit addition, opening summer 2013
US 41 is convenient route for Wauwatosa residents
200+ multi-family units planned (Stone Pointe)
The Reserve – existing apartments
Continued redevelopment of State Street corridor planned. Higher density/intensity, commercial and multi-family uses
Future multi-family expected
Small commercial node - New Altera cafe
US 41/I-94 interchange design not as important as maintaining access at Wells/Wisconsin and State Street
Avoid increased traffic on 70th / maintain 68th St. connection
West Project Limit
More freeway capacity would help businesses on Blue Mound Rd (less traffic on Blue Mound)
Important corridor to State Street and west side of city. Prefer braided ramp options for most direct access.
Tosa Village
Hart Park
State St
Wick Field Neighborhood
Jacobus Park
Wisconsin Ave
Wells St
Story Hill Neighborhood
Bluemound Rd
Mount Calvary Cemetery
Mitchell Blvd
Bluemound Heights Neighborhood
Spring Hill Cemetery
Miller Park
Wood National Cemetery
Dickinson St
Veterns Affairs
Joy Global
Zablocki VA Medical Center
State Fair Park
CITY OF MILWAUKEE
Honey Creek Pkwy
72nd St
68th St
64th St
60th St
92nd St
84th St
70th St
41
94

I-94 East-West Corridor Study
Indirect and Cumulative Effects
Meeting Minutes for Stakeholder Interviews

Meeting	Hispanic Chamber of Commerce of Wisconsin
Date, Time	March 14, 2013 3:00 p.m.
Location	Café El Sol at United Community Center, 1028 S 9th St Milwaukee
Attendees	Dobra Payant, WisDOT (I-94 E-W Study) Charlie Webb, CH2M Hill Carrie Cooper, WisDOT (I-43 N-S Study) Carolyn Seboe, HNTB Maria Monreal-Cameron, President / CEO Hispanic Chamber of Commerce Ivan Gamboa - Tri City National Bank and Cesar E. Chavez Business Improvement District Ricardo Diaz- Executive Director, United Community Center Nancy Hernandez, Abrazo Marketing

Meeting Summary

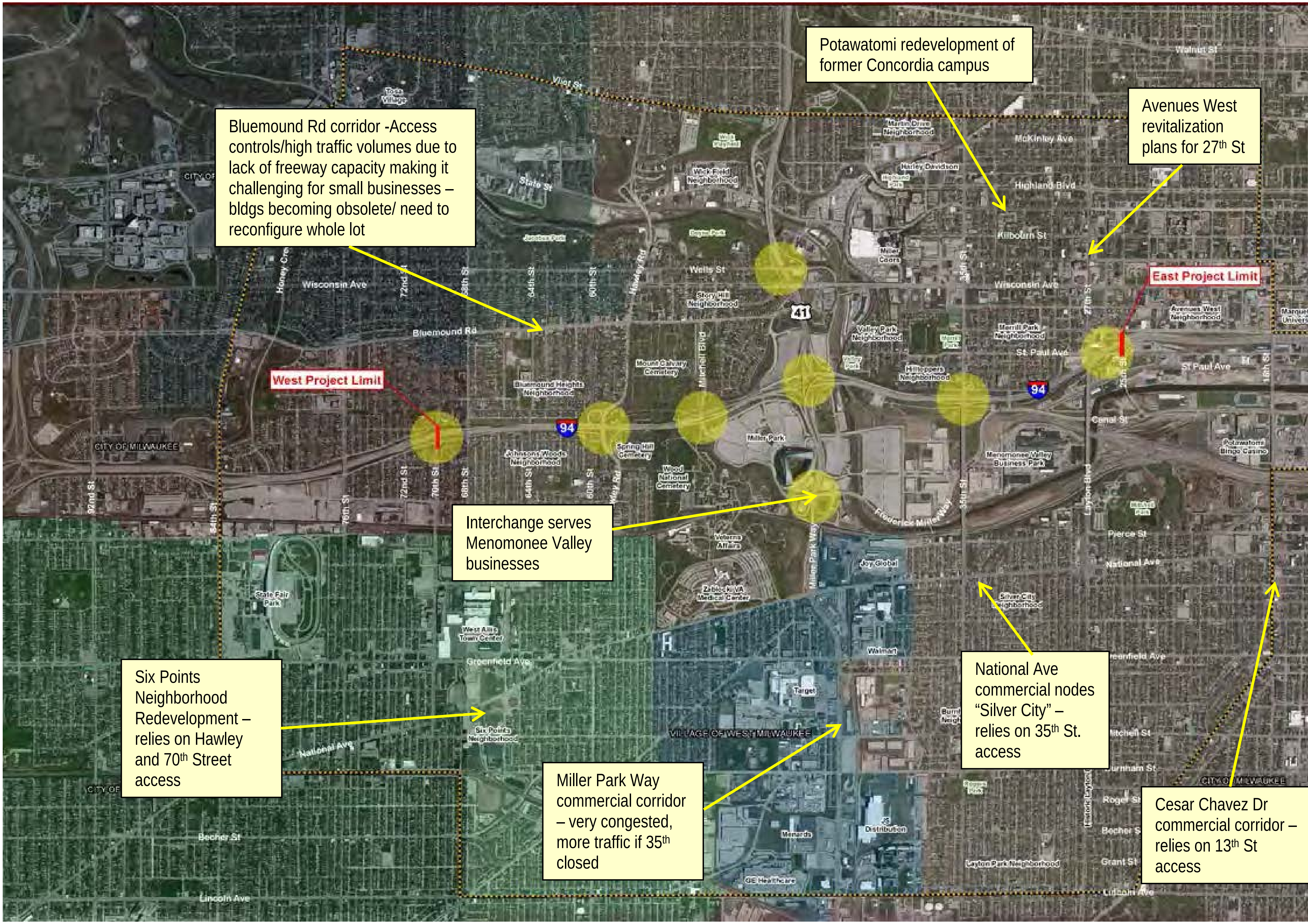
A meeting was conducted with Maria Monreal-Cameron, Ivan Gamboa and Ricardo Diaz to discuss indirect and cumulative effects for the Environmental Impact Statements being prepared for the I-94 East-West Corridor Study and the I-43 North-South Corridor Study. Charlie Webb provided an overview of the I-94 project and Carrie Cooper provided an overview of the I-43 project. The attendees represent organizations on the south side of Milwaukee and were therefore mostly interested in discussing effects related to the I-94 project.

The following is a summary of the comments that were made at the meeting:

- How well are the public meetings being attended? (Nearly 200 individuals have attended past meetings).
- It is becoming harder to do business on the large local arterials because access is being controlled so tightly do to the traffic volumes. This is less desirable to do business. The lack of highway capacity hurts small businesses on Highway 100 and Bluemound Road. Parking is being eliminated on-street and the value of buildings is decreasing. Buildings are becoming obsolete. You have to tear down existing building and reconfigure whole lot to fit to adjust to the access restrictions.
- If 35th Street is closed that will make the congestion on 43rd/Miller Park Way worse.
- How much is the 35th Street interchange used. (About 600 cars/day. It is similar to the other interchanges in the corridor.)
- The expansion of development has already happened. Capacity expansion of the freeway is needed to let people get in the city easier. Milwaukee has just as many redevelopment opportunities as the outlying areas. The suburbs are mostly built out. The primary redevelopment opportunities for Hispanic businesses are in Milwaukee near the lakefront and in the Menomonee Valley.
- It is important to get products in and out efficiently especially for the Menomonee Valley.
- The Canal Street interchange serves the Menomonee Valley. (no change anticipated for this interchange.)
- How would the Cesar Chavez Business Improvement District obtain better signage on the freeway near 13th Street? (Carrie Cooper and Dobra Payant will provide Ivan with a contact at WisDOT)
- If the interchanges are modified, it is ok as long as signage is provided.
- National Avenue is impacted by traffic volumes.
- Good access is needed for the livelihood of businesses.
- Main commercial corridors served by the I-94 corridor include:
    - Bluemound Road – Hawley to US 45: would be impacted by a Hawley Road interchange closure
    - National Avenue – Businesses at 35th Street and other commercial nodes
    - Avenues West – plans to revitalize 27th Street corridor (north of I-94)

  - Redevelopment of the former Concordia College campus located southeast of State Street and north of 33rd Street in Milwaukee's Concordia neighborhood. (Background: The Forest County Potawatomi Community is moving forward with $25 million redevelopment plan for the former campus. Of the seven buildings, one will be demolished and six will be renovated. Uses included tribal government offices, the Spotted Eagle High School, space for business incubators, office spaces. A new data center was constructed in 2012.)
  - Cesar Chavez Drive/16th Street - uses 13th Street access
  - Miller Park Way – very congested
  - Hawley Road – Wheaton Franciscan Hospital investing in facility
  - West Allis – Six Points redevelopment
- Options that end up creating new developable parcels could help mitigate impacts to loss of access.
- Discussion about existing congestion issues in downtown and reasons for the congestion.
- Contact Maria Monreal-Cameron at the Chamber to discuss focus group participants. Ivan Gamboa may be an option.

Notes prepared by Carolyn Seboe, HNTB


Potawatomi redevelopment of former Concordia campus
Avenues West revitalization plans for 27th St
Bluemound Rd corridor -Access controls/high traffic volumes due to lack of freeway capacity making it challenging for small businesses – bldgs becoming obsolete/ need to reconfigure whole lot
East Project Limit
West Project Limit
Interchange serves Menomonee Valley businesses
Six Points Neighborhood Redevelopment – relies on Hawley and 70th Street access
National Ave commercial nodes "Silver City" – relies on 35th St. access
Miller Park Way commercial corridor – very congested, more traffic if 35th closed
Cesar Chavez Dr commercial corridor – relies on 13th St access
Bluemound Rd
Wisconsin Ave
Miller Park
94
41

Appendix B: Focus Group Meeting Summary

I-94 East-West Corridor Study
Indirect and Cumulative Effects
Focus Group Meeting Summary

MEETING OVERVIEW

The Wisconsin Department of Transportation conducted a focus group meeting on June 6, 2013 to obtain feedback on the project's potential indirect and cumulative effects (ICE). The meeting was held from 9 a.m. to 12 p.m. in the conference room at the Wisconsin State Traffic Operations Center, located at 433 W. St. Paul Avenue. The ICE analysis is a component of the Environmental Impact Statement (EIS) for the I-94 East-West corridor study.

A broad range of stakeholders attended the meeting including local, regional and state government/quasi-government representatives, local businesses, real estate professionals and economic development organizations. In total, 23 people attended the meeting. The meeting was staffed by 11 project team members that included representatives from WisDOT, FHWA and the consulting firms of HNTB and CH2M Hill.

The meeting was divided into two parts. The first half included a presentation that provided background information about the I-94 East-West corridor study and a review of EIS terminology. Next, an overview of the process being used to analyze indirect and cumulative effects was presented. Then, the primary and secondary ICE study areas were introduced and the population, employment and land use trends affecting the ICE study areas were presented. The first half of the meeting concluded with a large group discussion to confirm the study area trends and to learn about other trends that might be relevant for the analysis.

For the second part of the meeting, the project team presented an overview of the proposed spot improvement alternative and the modernization options. Then, an overview of the potential indirect and cumulative effects was presented.

After the presentation, the participants were broken up into five different small groups to discuss the study areas and the potential indirect and cumulative effects. Participants had about 45 minutes to discuss a list of 12 questions. Due to time limitations, the report back session did not take place. Instead, the project team sent the meeting summary to participants.

LARGE GROUP DISCUSSION COMMENTS

The following is a summary of comments received during the large group discussion about the population, employment and land use trends and natural resources within the primary and secondary study areas.

- Randy Crump, African American Chamber of Commerce – Randy noted that he lives in one of the neighborhoods that are experiencing a decline in population (areas in red on population map). He said the I-94 corridor is important for access to jobs for residents in this area. There is also a need for more transit services to improve access to jobs.
- Perfecto Rivera, WHEDA – The 43rd Street/Miller Park Way corridor is extremely congested even on non-Brewer game days. Both commercial and residential development continues to take place along that corridor. There is a great amount of congestion from National Avenue all the way south to Lincoln Avenue. It currently takes a long time to get from the south to I-94. Some days it may take 20 minutes in the afternoon. This is a very important corridor for the south side in terms of access to retail goods and services, but the congestion in this area is frustrating to local residents. He feels the congestion along 43rd Street/Miller Park way is mostly due to the successful commercial development along the corridor.
- Dan Adams, Layton Boulevard West Neighbors – The Layton Boulevard West neighborhood has increased by over 4,000 residents in the past 10 years. People are drawn to living in a dense, walkable urban neighborhood with the convenience of the retail provided along the nearby Miller Park Way corridor.
- John Stalewski, Village of West Milwaukee – Eastbound National Avenue through the village of West Milwaukee experiences a lot of commuter traffic from the suburbs. There is also a lot of Brewer game-

related traffic. He feels that if any of the I-94 interchanges were eliminated there would be even more traffic and pressure on the West Milwaukee arterial streets.

- Maria Pandazi, City of Milwaukee – Finding ways to get residents to jobs is important. She noted that the increase in the number of jobs in Milwaukee County is occurring in specific locations. The job growth should be acknowledged in the analysis. It is important to find ways for workers to be able to access these locations through various modes of transportation. Maria noted there is spill over commercial and residential development moving west from the Harley Davidson Museum and the Third and Fifth ward neighborhood. Some of these locations are just outside the proposed primary study area boundary.
- Stephanie Findley, Midwest Construction – She noted that US 41 is a key route for people on the north side of Milwaukee for access to I-94. US 41/Lisbon Avenue is in poor condition and needs to be rehabilitated.
- Debra Jensen, MMSD – A vital river system improves quality of life for the region. Both water quality and quantity impacts from the highway need to be studied for the Menomonee River. The project needs to study the volume of runoff not just the peak flow. The peak flow is not the biggest impact to waterways, it is the volume. A number of years ago, a young girl lost her life when she fell into the fast moving stream during a rain event. Water quality is improving as indicated by the number of people fishing in the region's rivers, but road run-off is still a problem.
- Paulette Enders, City of Wauwatosa– She asked if the northern boundary for the proposed primary study area generally follows Vliet Street. She felt we should consider moving the boundary north to include the East Tosa Redevelopment area at North Avenue since this area relies on access to I-94 via US 41.
- Kyle Harmon, Summit City Realty – He worked on the redevelopment of the former Allis-Chalmers area in West Allis. There are redevelopment opportunities in West Allis, West Milwaukee, and the Menomonee Valley. We need to be able to get workers to these areas. Ten to 15 years ago the Allis-Chalmers site was vacant and now it is a vibrant work place and is only going to grow. The economic impact of access changes needs to be taken into consideration. The population figures do not tell the employment story, but the traffic generated by the jobs is a good indication of the investment that has happened. The area has seen 10s of thousands of jobs in the past decade. The data collected for the study area should reflect the job increases.
- Ken Yunker, SEWRPC – Maintaining access to I-94 is essential to support job growth and economic development in the corridor and surrounding areas. I-94 serves areas beyond the immediate corridor, including downtown Milwaukee. Ken said the new Northwestern Mutual development and Italian Community Center developments in downtown are an examples of the types of investments that are occurring. The I-94 corridor is important to existing and future development.
- Corey Zetts, Menomonee Valley Partners – In addition to the employment increases, entertainment and recreation opportunities in the corridor are expanding. You have existing facilities such as Miller Park, Harley Davidson Museum and Potawatomi Bingo Casino. There is also new investment including the Hank Aaron State Trail, improvement plans at Mitchell Park and a new park in the Menomonee Valley (Three Bridges Park). There are over 10 million visitors in this area each year and this trend is serving as a catalyst for neighborhood revitalization.
- Maria Pandazi, City of Milwaukee – Alternative transportation options are growing in other parts of the country and it is feasible that the Milwaukee area may see more transit investment in the future. Plans for the I-94 corridor should reflect the potential for future alternative transportation options.
- Al Pinckney, MATC – He takes alternative streets to avoid travel on I-94 and notes that even the side streets have heavy traffic. There is more traffic on these streets as motorists attempt to avoid congestion on I-94. The extra traffic on these arterial streets impacts businesses and education facilities.
- Larry Roberts, Potawatomi Bingo Casino – He asked if there are any plans to improve US 41 and Lisbon Avenue and if the work on I-94 would improve traffic operations on arterial roads. The arterials are very congested. Charlie Webb responded that with more capacity on I-94, more people are likely to use I-94 and this is likely to improve traffic on the local arterials. There are no specific plans to improve arterials as part of this project.
- Perfecto Rivera, WHEDA – The high occupancy vehicle lanes on the highway entrance ramps cause big delays and backups for single occupant vehicles. He mentioned the westbound Hawley Road entrance ramp as an example.

- Dan Adams, Layton Boulevard West Neighbors – He suggested an alternate view of congestion. He said it seems that congestion in the I-94 corridor is not enough to dissuade local trips since 60% of the I-94 traffic in the corridor is for local trips.

SMALL GROUP DISCUSSION COMMENTS

Small Group Facilitated by Carolyn Seboe and Ben Goldsworthy

Small Group Participants

Paulette Enders, City of Wauwatosa
Dan Adams, Layton Boulevard West Neighbors
Larry Roberts, Potawatomi Bingo Casino
Diane Eineichner, Downtown West Allis Business Improvement District
Debra Jensen, Milwaukee Metropolitan Sewerage District

Summary of Comments

The following is a summary of the comments that were made at the meeting. In addition, Debra Jensen submitted written comments after the meeting. Those comments are also summarized below.

1. **Do you recommend any changes to the primary or secondary study area boundaries? If so, what changes should be made and why?**

   The group felt a few adjustments were needed to the primary study area, but no adjustments were needed to the secondary study area.

   Paulette Enders suggested the primary study area should be extended north to include the area along North Avenue between 60th and 76th streets. This area may be affected by downgrading US41 to an arterial because US 41 provides a direct connection to I-94 for this neighborhood.

   Debra Jensen felt the study area needs to incorporate the downstream and upstream impacts of the highway on the river system. She said increased water volumes degrade stream banks and affect safety. She felt the exact limits of the boundary need to be based on modeling and will depend on the increased volume of stormwater runoff that will be produced by the project. Also, she felt WisDOT should consider the increase from this project as well as from the Zoo Interchange project. At a minimum, Debra felt the study area for the I-94 E-W project should include the localized impacts created immediately upstream of the project area as well as the downstream impacts along the Menomonee River between N. 70th Street and N. 25th Street.

2. **How would additional travel lanes affect land use/development patterns? Would it facilitate development in the primary study area? Does this project alone or in combination with other freeway projects have the potential to induce development in the secondary study area? Please indicate specific business, residential or other areas that may be affected.**

   Paulette Enders and Diane Eineichner felt capacity on I-94 should be increased to alleviate traffic on the local arterial streets. They felt less congestion on the arterials would help the businesses along those corridors.

   Dan Adams felt the freeway needed to be modernized, but had several concerns about capacity expansion relating to construction costs, property acquisitions and air quality. He wanted to know the difference in impacts between reconstructing the highway with and without additional travel lanes. Dan also felt that adding capacity would encourage people to live further away from the city because it would decrease commute times.

Larry Roberts did not think capacity expansion would encourage people to move further from the city. He felt that people chose to live in neighborhoods based on their person preferences and other factors such as schools. He doesn't want to see too much traffic on local business corridors.

Debra Jensen said she is concerned that additional travel lanes would increase impervious space and affect the area river system from increased water volumes.

Debra Jensen suggested the land on the east leg of the highway that would become available from the proposed realignment of the highway in this area could be used for stormwater management. Other participants discussed if the land could be developed. They noted that the grades in this area may make it challenging to develop.

3. **How do the proposed interchange modifications affect local land use/development patterns? Which alternatives are most consistent and which alternatives are least consistent with local plans? Please indicate specific business, residential or other areas that may be affected?**

Paulette Enders and Diane Eineichner stated that the 70th Street only interchange option that does not provide direct access to 68th Street would miss Wauwatosa and decrease access to the community's business corridors. It would also have residential impacts. They felt the reconstructed interchange should continue to serve both 70th and 68th streets to serve existing land use patterns that have developed around these split corridors. Also, they mentioned that 68th Street is an important north/south connection between West Allis and Wauwatosa, allowing easy access for residents to get to the businesses in both communities.

Paulette and Diane said interchange configurations that provide direct access are most desirable. However, they did not think the collector-distributor options would be a detriment to their communities as long as signage on the highway was provided. The interchange option at 68th/70th streets that does not have collector-distributor roads would be ideal, but not if the Hawley Road interchange is closed.

Paulette added that US 41 and Hawley Road interchanges are important access points for the Vliet Street business corridor and changes to those access points should consider Vliet Street.

Larry Roberts discussed the difficult access situation along the east leg of the highway. He feels it is discouraging investment. He said the 13th Street interchange serves the Menomonee Valley, Marquette University and downtown. It is congested and doesn't have good traffic flow. There are too many traffic signals and the railroad corridor adds extra delays. Guests to the casino complain about traffic jams and delays getting to the casino. He said the interchange option that consolidates access at 27th Street is least desirable because it eliminates the 25th Street connection. Access to 25th Street should be maintained because it provides the most direct access to Canal Street. Larry said a better solution would be to provide an access point to Canal Street via 35th Street. This would provide the most direct access to the Menomonee Valley and the Casino and provide an alternative to the congested 13th Street interchange.

4. **How would the freeway project affect local arterial routes? Would it affect traffic patterns and/or land use/development patterns? What arterial corridors may be affected?**

Paulette Enders and Diane Eineichner felt that additional travel lanes on the highway would reduce traffic on the arterials and help improve the vitality of the business corridors in Wauwatosa and West Allis including National Avenue, Greenfield Avenue, Bluemound Road and Wisconsin Avenue. They felt the types of businesses along the corridors are not likely to change, but less traffic on the arterials would help improve pedestrian mobility and decrease the vacancy rate of stores. Overall, less congestion would make the commercial districts more accessible.

Dan Adams was concerned that congestion on I-94 pulls traffic to National Avenue. He said National Avenue has been changed to accommodate traffic in some areas. Pedestrians avoid areas of National Avenue with fast moving traffic and more business vacancies are present. Streetscape features have been added to portions of National Avenue near 35th Street. This has calmed traffic and encouraged pedestrian activity, which has helped the vitality of the business district.

5. **How would land use/development patterns under the modernization alternatives compare to the no-build, replace-in-kind and spot improvement alternatives?**

   Paulette Enders and Diane Eineichner were the only participants left in the group for this question. They did not see a significant difference between land use patterns under the difference scenarios, but reiterated that businesses along the local arterials would benefit from capacity expansion on the highway.

6. **What other factors besides the freeway project are influencing land use/development patterns? (i.e. market demand, availability of land, local land use policies, availability of sewer/water.)**

   No comments were made.

7. **How might the freeway project's design elements affect neighborhood quality of life over time? What neighborhoods may be affected and why?**

   Dan was concerned about how the project would affect the quality of life in adjacent neighborhoods. He was concerned about air quality, traffic impacts and property acquisitions.

8. **How might the freeway project's design elements affect the vitality of business areas over time? What areas may be affected and why?**

   No comments were made.

9. **How might minority and low income populations be affected? Please indicate neighborhoods or business areas that may be affected and discuss the types of changes that may occur positively or negatively. Also, discuss how the availability of transit services affects low-income and minority populations.**

   No comments were made.

10. **Please discuss your concerns regarding indirect or cumulative effects to natural, cultural or historic resources?**

    Debra Jensen said the MMSD has water quality and water quantity concerns. She said water quality is improving in our region as witnessed by the increased fishing, boating and other water related activities. The I-94 project should ensure the runoff from the I-94 project does not have an adverse effect on the region's water quality. She said typical highway pollutants include heavy metals, chlorides, sulphates, particulates and others. MMSD has been removing stream barriers to allow fish to migrate further upstream. This will ultimately allow fish to move 37 miles upstream and open up fishing opportunities throughout the region. Debra said any adverse water quality impacts would have a detrimental effect on the fish and other life in the stream.

    From a water quantity standpoint, Debra said the MMSD would like WisDOT to analyze increases in stormwater volume caused by its projects, not just peak flows. Debra said increases in volumes have a number of impacts as follows:

    - Safety – increases in runoff volumes increase the velocity of stream flow resulting in unsafe conditions. Several years ago a young girl fell into a fast moving stream during a rain event and lost her life. This project in combination with the Zoo Interchange project will affect safety.
    - Erosion – increases in volume would increase stream bank erosion later in time. The Western Milwaukee Stream Bank repair project along the Menomonee River will repair about 220 feet of stream bank. Debra is concerned the I-94 project could create new impacts to this expensive restoration work.
    - Utilities – Erosion of stream banks can adversely impact utilities that are often located along waterways. An example is along the Menomonee River at about 25th Street. The river bank has eroded and is impacting the MMSD interceptor sewer. MMSD is planning to repair the stream bank.

If the repair did not occur, sewage could flow directly into the waterway. Stream bank erosion may also affect non MMSD utilizes as many kinds of utilities are along waterways.

- Flooding - Increases in runoff from the I-94 project and in combination with the Zoo Interchange project may result in flooded structures that would not have flooded prior to the freeway work. MMSD is implementing the Western Milwaukee Flood Management project downstream of the I-94 E-W project area; increases in runoff may increase the potential for flooding in this area and could impact the regulatory floodplain. Also, Falk is in the process of extending its floodwall to protect its facilities. This is an example of an industry that is affected by flooding. Ensuring that increased freeway runoff does not flood new structures is critical to business vitality and neighborhood growth and improvement.
- Impacts to fisheries: Many groups have been involved in removing fish passage barriers in the Menomonee River including environmental groups, U.S. Army Corps of Engineers, Wisconsin Department of Natural Resources, and MMSD. Increases in volume of runoff may impact the ability of fish to travel upstream; this could prevent fish from traveling from the lake and upstream through the Menomonee River.

11. **What other projects or developments have occurred, are currently happening or are planned that could result in cumulative effects to communities, natural resources or cultural/historic resources when combined with the impacts of this freeway project?**

    No comments were made.

12. **Please provide any other comments you may have.**

    No comments were made.

Small Group Facilitated by Charlie Webb and Brad Heimlich

Small Group Participants

Corey Zetts, Menomonee Valley Partners
Kyle Harmon, Summit City Realty
Michael Brockman, Southeast Wisconsin Professional Baseball Park District
John Stalewski, Village of West Milwaukee

Summary of Comments

The following is a summary of the comments that were made by participants of this group

1. **Do you recommend any changes to the primary or secondary study area boundaries? If so, what changes should be made and why?**

   The participants felt the boundaries for the study areas were adequate.

2. **How would additional travel lanes affect land use/development patterns? Would it facilitate development in the primary study area? Does this project alone or in combination with other freeway projects have the potential to induce development in the secondary study area? Please indicate specific business, residential or other areas that may be affected.**

   John Stalewski felt adding travel lanes to the freeway would enhance existing development patterns. He did not think it would accelerate the pace of development, but it would enhance existing and planned development in West Milwaukee.

   Corey Zetts felt alleviating bottle necks on the highway is good for businesses as long as access stays the same or improves. Making access more difficult could stall development and make the remaining parcels

more challenging to develop. She has heard concerns from residential neighborhoods adjacent to I-94 that think freeway widening could make their neighborhood less desirable.

Charlie Webb asked participants if widening I-94 all the way through WIS 16 would affect the regional development patterns. John said he was not sure. Kyle Harmon said there would not be a big difference between widening and not widening the freeway. Kyle also said there are many downsides to the at-grade option through the cemetery section that would require narrow lanes. He felt the loss of Hawley Road interchange would negatively impact the area.

Mike Brockman related an anecdotal story about his own residential location decision. He wanted to move out of his southwest side neighborhood and after looking west he decided to move to Franklin partly because of congestion in the Zoo Interchange corridor.

3. **How do the proposed interchange modifications affect local land use/development patterns? Which alternatives are most consistent and which alternatives are least consistent with local plans? Please indicate specific business, residential or other areas that may be affected?**

   In general, the participants felt making access more difficult would have a detrimental effect on development.

4. **How would the freeway project affect local arterial routes? Would it affect traffic patterns and/or land use/development patterns? What arterial corridors may be affected?**

   John said if the arterials are congested to the point that people can't move around, it is detrimental to businesses. He noted that eastbound National Avenue backs up from Miller Parkway to the west end of the VA complex.

   Corey said she already hears from businesses in the Silver City district that there is too much traffic on National Ave and it hurts their businesses.

5. **How would land use/development patterns under the modernization alternatives compare to the no-build, replace-in-kind and spot improvement alternatives?**

   Kyle Harmon said less congestion on the freeway will make it easier to market real estate in the primary study area. For example, if the Brewers want to develop part of their parking lot, a modern freeway would enhance their real estate. He also felt light rail and any other modes of transportation would be good for development in the primary study area.

   Mike Brockman felt less congestion will be better for development. Less congestion would help people get to places they want to go easier. He felt safety improvements are good too.

   Corey Zetts said the current freeway configuration impedes redevelopment of the 27th Street and St. Paul Avenue area. The current configuration leaves pockets of undevelopable land and this attracts nuisance activities.

   Kyle said there is still land available for commercial and industrial development in the primary study area. He and John circled several areas on the map that could be redeveloped. Examples included the Drop Forge site, sites along Electric Avenue in West Milwaukee, areas to the west of Six Points along 70th Street in West Allis, east end of the Menomonee Valley (east of I-43), the St. Paul Avenue corridor and the parking lots at Miller Park. They felt opportunities for residential development were limited. Kyle said the Milwaukee Mile is the most desirable parcel in the state.

6. **What other factors besides the freeway project are influencing land use/development patterns? (i.e. market demand, availability of land, local land use policies, availability of sewer/water.)**

   The participants mentioned some factors that make development in the primary study area more challenging. They mentioned it can be difficult to bring parcels to market due to brownfield issues. Also,

some parcels lack adequate access to the local street network. An example is the parcel known as Reed Street yards Milwaukee.

The participants also mentioned some factors that are helping to facilitate development within the primary study area. John mentioned the commercial development along Miller Parkway was sparked by an influx of new residential development in West Milwaukee. Also, Corey mentioned there has been some spill over development from Walkers Point into the east end of the Valley.

7. **How might the freeway project's design elements affect neighborhood quality of life over time? What neighborhoods may be affected and why?**

   Corey said she is hearing concerns about freeway encroachment and noise impacts. She said people are also concerned that the new freeway will create a perceived barrier to crossing, like I-794 between downtown and the Third Ward.

   John said the least amount of land acquisition would be best.

8. **How might the freeway project's design elements affect the vitality of business areas over time? What areas may be affected and why?**

   Corey felt the proposed I-94 bridge that would go over St. Paul Avenue would create an unpleasant environment and would be a blighting influence. The proposed bridge would be similar to the I-794 bridge structure between downtown and the Third Ward. A bridge over St. Paul Avenue could be detrimental to redevelopment at the west end of St Paul Avenue, especially with the freeway alternative that realigns both directions of the mainline.

   Corey mentioned there are huge grade changes in this area and asked if redevelopment could occur in the area where the freeway would be removed. If the area is not developable, then the remaining vacant land would attract nuisance activities such as car break-ins and litter. The area around 27th Street is already susceptible to nuisance activities because the freeway and steep slopes create pockets for homeless camps.

   Kyle said elevated freeway structures around the Milwaukee area create divisions in the community. He said the continuity of the St. Paul Avenue corridor is very important.

9. **How might minority and low income populations be affected? Please indicate neighborhoods or business areas that may be affected and discuss the types of changes that may occur positively or negatively. Also, discuss how the availability of transit services affects low-income and minority populations.**

   John said transit and other modes of transportation seem to be mutually exclusive in southeastern Wisconsin. He said this makes it more challenging for people to get to jobs and said the freeway project won't address that.

   Mike said we need to keep existing access points to help people that have established themselves in the area.

   Corey said Silver City is starting to redevelop. The Merrill Park neighborhood still has a lot of vacancies and foreclosures. It is important to keep neighborhoods connected to the freeway by maintaining access at 27th Street and 35th Street and it is important for the neighborhood to the north and south of the freeway to be connected. Many employees live in the adjacent neighborhoods north and south of the Menomonee Valley.

10. **Please discuss your concerns regarding indirect or cumulative effects to natural, cultural or historic resources?**

    Corey said she is concerned about stormwater runoff from the highway.

11. **What other projects or developments have occurred, are currently happening or are planned that could result in cumulative effects to communities, natural resources or cultural/historic resources when combined with the impacts of this freeway project?**

    Redevelopment within the primary study area will increase traffic and demand for additional services. There are a lot of destinations such as Miller Park, State Fair Park and Potawatomi Bingo Casino that generate demand for ancillary services such as restaurants and hotels. Providing convenient access to those ancillary services is needed.

12. **Please provide any other comments you may have.**

    No additional comments were mentioned.

Small Group Facilitated by Ashley Booth and Monica Wauck

Small Group Participants

Bart Griepentrog: City of West Allis
Jim Plaisted, Wauwatosa Village Business Improvement District
Christopher Hiebert, Southeast Wisconsin Regional Planning Commission
Shannon Jefferson, Gibraltar Industries and African American Chamber of Commerce

Summary of Comments

The following is a summary of the comments that were made by the participants of this group.

1. **Do you recommend any changes to the primary or secondary study area boundaries? If so, what changes should be made and why?**

   Chris Hiebert recommended including the Third Ward in the primary study area because I-94 would service any development/redevelopment associated with the Lake Interchange reconstruction. Also, he recommended extending the primary study area to the Fond du Lac Avenue/I-43 interchange to include a larger area of downtown.

   Jim Plaisted recommended extending the northern boundary at Vliet Street to North Avenue, at least through Wauwatosa since many people travel from North Ave to I-94. Chris and Shannon Jefferson agreed with Jim.

   Bart Griepentrog recommended moving the southern boundary to the south in West Allis so the industrial corridor along Lincoln Avenue is not split up.

   Shannon noted that it is difficult to get to the rest of the region from the 30th Street Industrial Corridor. For example, to get to Saukville, one usually takes US 41 to I-94 to I-43.

   In regards to the secondary study area, Chris noted that the strongest travel pattern is between Waukesha and Milwaukee counties, and that “reverse” commuting is virtually equal to traditional commuting between the two counties.

   Bart added that even though the commute patterns are relatively equal, Milwaukee still has a larger share of the regional population than Waukesha County and would be more affected by the potential I-94 project. Therefore, the needs of the communities along the project corridor should have more weight than communities in the secondary study area.

2. **How would additional travel lanes affect land use/development patterns? Would it facilitate development in the primary study area? Does this project alone or in combination with other freeway projects have the potential to induce development in the secondary study area? Please indicate specific business, residential or other areas that may be affected.**

Chris, Jim and Shannon felt additional travel lanes and other interchange modifications would not dramatically affect land use trends. It was noted that redevelopment was already occurring in the primary study area and it would likely continue regardless of the freeway alternative chosen. They discussed how places in Wauwatosa have experienced tremendous development/redevelopment (Research Park, UWM Engineering school, Burleigh Triangle, etc.). They said this is due to the community's central location and its existing large population base. They also mentioned West Allis, Miller Parkway and the Menomonee Valley were experiencing strong redevelopment.

In general, Bart and Shannon did not see current congestion as a major problem. Bart felt that congestion was more of a perceived problem. Bart and Shannon noted that congestion is much worse in other cities (i.e. Chicago, New York, L.A. etc. or even Minneapolis). Bart felt that current congestion was not discouraging people from coming to the primary study area, downtown or other major attractions like State Fair, Miller Park, etc.

Jim agreed with Bart's point about congestion and said that a perceived lack of parking affects people's decisions to come to Wauwatosa or the primary study area more than perceived or real congestion on I-94. Jim wanted to know if large employers (Joy Global, etc.) viewed congestion as a problem and if congestion has impacted decisions for businesses to relocate or expand in the primary study area.

Shannon said access is very important to employers and employees, especially in the 30th Street Industrial Corridor and any improvements to access from I-94 to the 30th Street Industrial Corridor would be helpful.

Bart said reduced congestion and quicker travel times from capacity expansion would help development in Waukesha County because land is cheaper there. It was noted by Chris that there are other factors that weigh into decisions related to development such as: schools, crime, water and sewer availability, etc. Bart agreed that there are other factors that influence development decisions, but quicker travel times to and from Waukesha County would eliminate the core advantages of the primary study area which are population density and a large customer base.

Some participants including Bart, Shannon and Jim felt that urban-density was a more cost-effective development pattern and that freeway expansion subsidizes suburban sprawl, which is less cost effective. On the other hand, Chris felt that freeway expansion provides better access to downtown Milwaukee and the primary study area, improves safety, and improves travel reliability which is important for industry.

Jim indicated that he preferred to see congestion mitigated by multimodal solutions (i.e. trains, streetcar, bus improvements, etc). Bart and Shannon both agreed and supported more investment in multimodal options. Chris also felt more multimodal invest was important for the region.

3. How do the proposed interchange modifications affect local land use/development patterns? Which alternatives are most consistent and which alternatives are least consistent with local plans? Please indicate specific business, residential or other areas that may be affected?

Everyone in the group agreed that maintaining access at all the existing interchanges is vital. In particular, 70th street is vital to West Allis businesses and 68th Street is vital to Wauwatosa's village area. Jim indicated that the alternative that eliminates direct access to 68th Street would be bad for Wauwatosa and that he didn't support having to jog over from 70th Street back to 68th Street to go north.

4. How would the freeway project affect local arterial routes? Would it affect traffic patterns and/or land use/development patterns? What arterial corridors may be affected?

Jim and Shannon maintained that freeway expansion would pull traffic off local roads, in particular State Street and Bluemound Road. Jim said that this would be a benefit because excessive commuter traffic through neighborhoods and central business districts detracts from the quality of life.

Bart said traffic on Greenfield and National avenues during commuting hours was excessive. However, he felt people avoided these corridors less because of congestion and more because of the traffic signal spacing in downtown West Allis being too frequent.

5. **How would land use/development patterns under the modernization alternatives compare to the no-build, replace-in-kind and spot improvement alternatives?**

   Bart said that before the freeway, the city had the economic advantage. He feels the modernization alternative without capacity is the most neutral option and that there are more questions and potential impacts with added capacity. Modernization has a less negative impact and adding capacity has more impact.

6. **What other factors besides the freeway project are influencing land use/development patterns? (i.e. market demand, availability of land, local land use policies, availability of sewer/water.)**

   Chris mentioned several factors that are influencing development patterns. Examples include: schools, land prices, access to infrastructure, taxes and crime. Bart indicated those are key factors in development decisions, but the main advantages for development/redevelopment in the primary study area are lower transportation costs from shorter commutes, the ability to have one car versus two cars and access to other modes of transportation like bicycling and bus. He also mentioned having the ability to walk to restaurants and shopping is an advantage for the primary study area.

   Jim said that Milwaukee County has become more attractive since the recession because it has the population density and buying power to attract retail. Waukesha lacks the density to attract high-end retailers—that's why Pabst Farms is struggling and why Nordstrom is locating near Mayfair in Wauwatosa. He said density and access to market places is critical to businesses. This phenomenon seems to be here to stay. Shanon agreed and indicated she used to go to Brookfield Square in the 90's and now Mayfair/Tosa has everything one needs and seems to be the hot spot for shopping and restaurants.

   Chris said that telecommuting might make the home location more flexible in the future and impact the needs for infrastructure even more.

7. **How might the freeway project's design elements affect neighborhood quality of life over time? What neighborhoods may be affected and why?**

   Shannon said that freeway access is vital because the central city would be isolated without access and would not be able to attract neighborhood amenities. She indicated the 30th Street Industrial Corridor would benefit from more ancillary goods and services to support the businesses. She reiterated the success of Mayfair is due to its freeway access. She also said no access to jobs and capital perpetuates crime.

8. **How might the freeway project's design elements affect the vitality of business areas over time? What areas may be affected and why?**

   Participants reiterated that access to the freeway is vital to business corridors.

9. **How might minority and low income populations be affected? Please indicate neighborhoods or business areas that may be affected and discuss the types of changes that may occur positively or negatively. Also, discuss how the availability of transit services affects low-income and minority populations.**

   All participants reiterated that access to transportation is critical to all populations, whether minority or low income including transit and automobile access. Shannon indicated the primary reason she located her business to the former Eaton building in the 30th Street Industrial Corridor was its proximity to a bus route.

   Shannon indicated that residents in the primary study area or in Milwaukee in general spend a high portion of their disposable income. This has helped to facilitate redevelopment in places like Milwaukee's Near south side and Miller Parkway.

   Shannon said she hopes the growth of the Miller Parkway commercial corridor would spread north of I-94 along US 41 and into the 30th Street Industrial Corridor. She said people underestimate the buying power of the inner city.

All four participants noted that transit is critical and that it needs to be regional. Bart indicated that projects like I-94 E/W and the Zoo Interchange would likely face less opposition, if there was an expansion of transit projects. If projects like the Milwaukee Streetcar weren't directly trying to be stopped, then freeway improvement projects may not receive as much opposition.

The group indicated poverty on the north side of Milwaukee is directly related to a lack of access to jobs. It is difficult for people to go west (I-94) or north (I-43) to access suburban jobs due to the lack of automobile ownership, valid driver's licenses and regional transit.

10. **Please discuss your concerns regarding indirect or cumulative effects to natural, cultural or historic resources?**

    No comments were made.

11. **What other projects or developments have occurred, are currently happening or are planned that could result in cumulative effects to communities, natural resources or cultural/historic resources when combined with the impacts of this freeway project?**

    No comments were made.

12. **Please provide any other comments you may have.**

    No comments were made.

Small Group Facilitated by Connie White

Small Group Participants

Teig Whaley-Smith, Milwaukee County
Al Pinckney, Milwaukee Area Technical College
Perfecto Rivera, Wisconsin Housing & Economic Development Authority (WHEDA)
Charles Vang, Hmong Wisconsin Chamber of Commerce
Jason Tolleson, Harley-Davidson Motor Company

Summary of Comments

The following is a summary of the comments that were made by the participants of this group.

1. **Do you recommend any changes to the primary or secondary study area boundaries? If so, what changes should be made and why?**

   The primary study area should extend further south down Miller Parkway to Lincoln Avenue and further north to North Avenue to capture neighborhoods that are currently divided by the study area boundary line.

   Some participants discussed that the primary study area should include downtown Milwaukee, all the way to Lake Michigan since I-94 serves as the main access to downtown from locations to the west.

   One participant said the secondary study area should be based on whether the cumulative effect of all the other highway projects in the region will improve travel time enough to affect economic development.

   Another participant said the secondary study area that includes Milwaukee and Waukesha counties is appropriate.

2. **How would additional travel lanes affect land use/development patterns? Would it facilitate development in the primary study area? Does this project alone or in combination with other freeway projects have the potential to induce development in the secondary study area? Please indicate specific business, residential or other areas that may be affected.**

Currently there is a bottleneck going west from the Marquette Interchange to the Stadium Interchange and congestion is rising. This is affecting the Menomonee Valley area's attractiveness. Addressing this congestion may help make the area more attractive to development. The access to Potawatomi Bingo Casino from I-94 is also a safety and congestion problem that if fixed, would attract economic development.

There is incredible congestion around Miller Park that needs to be fixed to encourage economic development along Miller Parkway. If the freeway is made safer and easier to drive, Miller Parkway will be more attractive to customers. The Miller Parkway corridor all the way to Lincoln Avenue has areas that could still be redeveloped.

Some of the participants felt transit would not adequately address congestion.

MATC has just finished a 10-year facility plan indicating the need to expand a "community training facility" at the West Allis Campus. This is being done to meet the needs of local manufacturers for skilled workers. This is expected to increase student traffic on their campus.

3. **How do the proposed interchange modifications affect local land use/development patterns? Which alternatives are most consistent and which alternatives are least consistent with local plans? Please indicate specific business, residential or other areas that may be affected?**

   On the north side of I-94, 27th Street is the focus of revitalization efforts. This is where future development will occur because of the interchange access at 27th Street. Improving access to 27th Street would make the corridor more conducive to economic development. The commercial section between I-94 and Highland Avenue currently has about 75 percent vacancies (including vacant and undeveloped properties). Alleviating congestion is necessary because it will improve access to 27th Street. On the south side of I-94, there will be some development along the 35th Street corridor including the Silver City main street district.

   Access to bicycle routes is very low in the north side neighborhoods and it is difficult to get to the Hank Aaron State Trail on the south side of I-94. Improved north/south connections across the freeway would increase the quality of life for residents on the north side of I-94.

   For the east leg, the braided ramp option seems to be best for traffic. It also has the most relocation impacts. However, anything that is safer and better for traffic makes the area more attractive for economic development. All of the alternatives proposed for the east leg are equally effective in this respect.

   For the Stadium interchange, the interchange option that has the best traffic flow would have the most positive effect on economic development in the area, including south along Miller Parkway.

   The interchange at 35th Street is a commuter route and if changes affect the access/traffic flow at 27th Street, it will be a problem for redevelopment/development efforts along the 27th Street corridor.

   For the Stadium Interchange, the relative loss of real estate with the bigger footprint from the free flow option is not severe, based on what exists there now and for future development as well.

4. **How would the freeway project affect local arterial routes? Would it affect traffic patterns and/or land use/development patterns? What arterial corridors may be affected?**

   In general, the participants felt that additional capacity on the freeway was needed to alleviate congestion on the local arterials. This would help facilitate economic development in the primary study area.

5. **How would land use/development patterns under the modernization alternatives compare to the no-build, replace-in-kind and spot improvement alternatives?**

   No comments were made.

6. **What other factors besides the freeway project are influencing land use/development patterns? (i.e. market demand, availability of land, local land use policies, availability of sewer/water.)**

No comments were made.

7. **How might the freeway project's design elements affect neighborhood quality of life over time? What neighborhoods may be affected and why?**

   North side neighborhoods can be positively affected if the congestion decreases and the accessibility to 27th Street is improved. Also, bicycle connections across the freeway are important.

8. **How might the freeway project's design elements affect the vitality of business areas over time? What areas may be affected and why?**

   The steep vertical curve of the existing Stadium interchange (as you cross it from north to south) is very dangerous. Increasing the safety of this interchange would make the area more attractive for economic development.

9. **How might minority and low income populations be affected? Please indicate neighborhoods or business areas that may be affected and discuss the types of changes that may occur positively or negatively. Also, discuss how the availability of transit services affects low-income and minority populations.**

   No comments were made.

10. **Please discuss your concerns regarding indirect or cumulative effects to natural, cultural or historic resources?**

    No comments were made.

11. **What other projects or developments have occurred, are currently happening or are planned that could result in cumulative effects to communities, natural resources or cultural/historic resources when combined with the impacts of this freeway project?**

    Other highway projects, MATC campus plans, development along Miller Parkway, Menomonee Valley, and 27th Street could all be positively affected by decreasing congestion and increasing safety and accessibility.

12. **Please provide any other comments you may have.**

    No comments were made.

Small Group Facilitated by Caron Kloser

Small Group Participants

Maria Pandazi City of Milwaukee
Peter McMullen Wisconsin Department of Natural Resources
Randy Crump, Prism Technical/African American Chamber of Commerce
Stephanie Findley, Midwest Construction/African American Chamber of Commerce

Summary of Comments

The following is a summary of the comments that were made by the participants of this group at the meeting. In addition, Maria Pandazi submitted written comments after the meeting. Those comments are also summarized below.

1. **Do you recommend any changes to the primary or secondary study area boundaries? If so, what changes should be made and why?**

Maria Pandazi, Randy Crump and Peter McMullen felt that the downtown, Third Ward and Fifth Ward areas should be added to the primary study area. They felt the secondary study area boundary was appropriate.

Maria felt the Harley Davidson Museum and the Milwaukee Intermodal Station should be included in the primary study area. She also felt that the Third Ward and some of Walker's Point should be included because spill over development from these areas is moving west. Maria felt the secondary study is fine. She suggested it could be extended to the south to consider connections between Milwaukee and Chicago and consider if that connection is served by I-894.

2. **How would additional travel lanes affect land use/development patterns? Would it facilitate development in the primary study area? Does this project alone or in combination with other freeway projects have the potential to induce development in the secondary study area? Please indicate specific business, residential or other areas that may be affected.**

Maria felt that increasing capacity and reducing travel times would not facilitate development in the primary study area because most of the alternatives change access or have a larger freeway footprint that takes viable properties. She felt additional travel lanes could negatively impact development patterns because the emphasis is on moving cars through and not on access into the city. Maria also felt that the modernization alternatives that increase the number of lanes has the potential to induce development in the secondary study area for most land uses.

Randy noted that an extra lane is not expected to affect development patterns. Freeway access will help the Menomonee Valley and the growing entertainment venues downtown. The increased freeway profile in the vicinity of the Menomonee Valley could make it less attractive, but that could be mitigated with ongoing industrial development and there are commercial, recreational and entertainment uses already in the Valley.

Randy Crump said the north side of the freeway needs redevelopment. He asked if the freeway access could offer potential for redevelopment here.

On the west leg, Maria said the increased physical height of the infrastructure could create a sense of continuity disruption at the VA, cemeteries and Story Hill neighborhood.

Maria and Randy both though those State Street businesses depend on access from 68th Street; There is a commercial area on 76th Street just south of Bluemound Road that would not be affected.

3. **How do the proposed interchange modifications affect local land use/development patterns? Which alternatives are most consistent and which alternatives are least consistent with local plans? Please indicate specific business, residential or other areas that may be affected?**

Maria would like to see a "combo platter" of No Build/Spot Improvements and modernization.

Maria said access to neighborhoods is an important aspect of all city plans. She felt the freeway alternatives limit access to favor capacity expansion and that this is inconsistent with the city's planning documents. On the west leg she said alternatives that limit access and cul-de-sac local streets diminish access into neighborhoods. In the cemetery section, it is important to maintain access along Mitchell Boulevard because it connects two historic resources. Maintaining access at Hawley Road is also important. Maria felt that on the east leg, most alternatives seem to make access into the valley more difficult or round about and this is a major employment and economic engine for the area.

4. **How would the freeway project affect local arterial routes? Would it affect traffic patterns and/or land use/development patterns? What arterial corridors may be affected?**

Randy said, in the city, traffic on city roads are destination focused; freeway drivers don't want to use local streets; additional freeway capacity won't change travel patterns. Maria wondered if freeways really need to be designed for peak hour traffic (slower traffic in an urban area isn't bad).

Maria stated that some of the freeway alternatives may greatly affect local arterials by concentrating more cars on them. This could negatively impact property values on those streets.

Randy felt that US 41 and Lisbon Avenue improvements would have a bigger effect on land use, especially in combination with freeway improvements. Improving US 41/Lisbon Avenue (in a coordinated fashion with freeway improvements) could be a game changer (in a positive way) for the surrounding neighborhoods. Making the US 41/Lisbon Avenue corridor a "super street" (a boulevard type setting that could accommodate multiple travel modes) could re-establish neighborhood connections and create a tremendous opportunity for redevelopment.

5. **How would land use/development patterns under the modernization alternatives compare to the no-build, replace-in-kind and spot improvement alternatives?**

   Maria said it would depend on the type of modernization (CD roads vs. frontage roads, for example). CD roads are more freeway oriented, which change the landscape. It's okay to slow down traffic through the urban corridor. Randy said capacity expansion is okay as long as it works in concert with other street improvements (e.g. US 41/Lisbon Avenue).

   Maria felt that spot improvements seem to have the most balanced impacts and that more spot improvement options should be considered. She felt spot improvements would improve safety and maintain access that is important for neighborhoods and businesses.

6. **What other factors besides the freeway project are influencing land use/development patterns? (i.e. market demand, availability of land, local land use policies, availability of sewer/water.)**

   Maria said access to workers, market forces and quality of life choices are influencing development patterns. The group also discussed that easier access could result in increased pressure for sewer/water service for currently undeveloped areas.

7. **How might the freeway project's design elements affect neighborhood quality of life over time? What neighborhoods may be affected and why?**

   Maria felt freeway encroachment and the "barrier" effect would impact neighborhood quality of life, particularly on the west leg. She felt enlarged infrastructure would create visual impacts, noise impacts and increased traffic on local arterials. This would have a negative impact on neighborhoods and negatively affect the "livability" of the adjacent neighborhoods. She also felt the additional travel lanes would result in a loss of the "green buffer" to the residential areas on the west leg and decrease the value of the neighborhoods. In the cemetery section, she mentioned the increased height of the double deck freeway would have impacts on the surrounding neighborhoods.

8. **How might the freeway project's design elements affect the vitality of business areas over time? What areas may be affected and why?**

   Maria said if access is limited or if it is made more difficult to find businesses, it would have a very negative impact. Also, she said the visual impact of the large elevated ramps/infrastructure could have a negative effect on property values and businesses.

9. **How might minority and low income populations be affected? Please indicate neighborhoods or business areas that may be affected and discuss the types of changes that may occur positively or negatively. Also, discuss how the availability of transit services affects low-income and minority populations.**

   Maria said for minority and low income populations that have a car and driver's license, access to the interstate is via local roads and therefore maintaining access points is important to those who drive. She added public transit and improved transit availability is also important to these populations and the elderly populations.

   Maria said most low income and minority populations in the state live in this area and within the city of Milwaukee neighborhoods that surround this project. Doing a project that negatively impacts the broader city

(economic development, access, neighborhood livability, etc.) will by default negatively impact minority and low income populations.

10. **Please discuss your concerns regarding indirect or cumulative effects to natural, cultural or historic resources?**

    A concern was raised about how increased impervious area could affect development opportunities. For example, the St. Paul Avenue corridor and Badger Truck area in the Menomonee Valley could experience more stormwater flow from increased pavement. Existing businesses in this area already has flooding problems.

    Maria said she is concerned about impacts on neighborhoods that have historic value. She said all urban neighborhoods have historic roots and are valuable from a historic and cultural point of view. She is concerned about the increase in infrastructure and the increase of impervious surfaces and the effect it could have on the environment and air quality. She said the VA historic resources are also a concern.

11. **What other projects or developments have occurred, are currently happening or are planned that could result in cumulative effects to communities, natural resources or cultural/historic resources when combined with the impacts of this freeway project?**

    Maria provided the following list: redevelopment/development in the Menomonee Valley; preservation of the VA grounds; downtown streetcar; Hank Aaron state trail; Three Bridges Park; neighborhood stability programs; improvements to Washington Park and the work of the Washington Park Partners.

12. **Please provide any other comments you may have.**

    Maria said it seems that all the modernization alternatives plan for a great increase in capacity and these alternatives do not balance the other effects on the primary study area. She said alternatives that plan for a more moderate increase in capacity could balance the impacts better. She felt the study should choose either increased travel lanes or increased distribution lanes (i.e. C/D, frontage roads), but not both. Both seem to be overkill.

MEETING SUMMARY

Overview

The Wisconsin Department of Transportation conducted a focus group meeting on June 6, 2013 to obtain feedback on the project's potential indirect and cumulative effects (ICE). A broad range of stakeholders attended the meeting including local, regional and state government/quasi-government representatives, local businesses, real estate professionals and economic development organizations. In total, 23 people attended the meeting.

The first part of the meeting focused on the population, employment and land use trends affecting the primary and secondary study areas. A large group discussion was held to confirm the trends and to learn about other trends that might be relevant for the analysis.

The second part of the meeting focused on the potential indirect and cumulative effects that may occur as a result of the I-94 East-West corridor project. The participants were divided into five small groups to discuss a series of questions related to indirect and cumulative effects.

Study Area Trends

Overall, the participants agreed with the trends that were presented for the primary and secondary study areas. Participants emphasized that the primary study area has seen large growth in employment from the redevelopment of former industrial lands. They emphasized that the employment growth is substantial and

is in the tens of thousands of new employees. Examples include the Menomonee Valley, Miller Parkway, State Street and the 70th Street/Six Points area in West Allis.

Participants felt the increase in employment in the primary study area has led to an increase in traffic along many local arterials that are now experiencing congestion. They felt that traffic would only get worse in the primary study area because additional opportunities for redevelopment are still available and jobs in the primary study area will continue to increase.

Participants pointed out that the residential population is increasing in some areas of the primary study area such as Milwaukee's near south side. People are attracted to the walkable neighborhoods and the amenities they provide. Also, the recreational and entertainment facilities within the primary study area are attracting millions of visitors annually. This has helped to catalyze revitalization in adjacent neighborhoods.

While some areas of the primary study area are experiencing growth, the north side of I-94, east of the Stadium Interchange is declining in population. This is due to concentration of poverty and poor access to jobs from inadequate transit services and relatively low vehicle ownership rates in these neighborhoods.

It was pointed out that the health of the river system contributes to the quality of life in the area and that water quantity and quality impacts of the freeway need to be considered.

Study Area Boundaries

The participants recommend some adjustments to the primary study area. Suggestions included:

- Moving the northern boundary to North Avenue to capture neighborhoods and business corridors that rely on US 41 for access to I-94.
- Including downtown since the I-94 corridor services existing and planned downtown development.
- Including the Third and Fifth Ward neighborhoods since Milwaukee's Near South Side is experiencing some spill over development from these areas.
- Including the industrial areas along Miller Parkway just south of Lincoln Avenue since these lands rely on access to I-94 via Miller Parkway and could be redeveloped in the future.

No changes to the secondary study area were recommended.

Key Findings

The following are some of the key findings that resulted from the focus group meeting.

<u>New Travel Lanes</u>
For the most part, participants felt the freeway was in need of modernization to improve safety and traffic operations. However, some participants differed on their views about capacity expansion. Many participants felt additional travel lanes were needed to alleviate congestion on the freeway and along local arterial routes. They felt that congestion is limiting the economic development potential of the primary study area by discouraging people from traveling to and within the primary study area. On the other hand, some participants felt that additional travel lanes would support decentralized land use patterns outside Milwaukee County because the improved travel times would make it easier for people to live farther from their place of employment where land is cheaper. Also, a few participants felt that congestion was not discouraging people from coming to the primary study area. Other factors such as availability of parking have a larger influence.

A few participants felt the likelihood of induced development in Waukesha County would increase if the capacity of the freeway was expanded for the entire I-94 corridor through Waukesha County. Other participants felt that capacity expansion throughout the secondary study area would not have much effect on regional development patterns because so many other factors are influencing where people chose to live and the accessibility is already available. Also, many participants felt development within the primary study area would happen regardless of capacity expansion. The primary study area has been experiencing tremendous redevelopment and it benefits from a central location and an existing population base.

Several participants felt that multimodal solutions should be incorporated to help alleviate congestion in the corridor.

Interchange Modifications

Participants strongly felt that all existing access points needed to remain to support the neighborhoods, cultural resources and business corridors that have developed around those access points.

A few participants were concerned about less direct access on the west side of the corridor and how that could affect the viability of business corridors served by those interchanges. Other stakeholders felt the proposed interchange modifications on the west leg would have little effect as long as the design maintained access to both 70th and 68th streets and proper signage on the freeway was provided. Nearly all participants felt the interchange option that removes direct access to 68th Street would negatively affect existing and planned development to the north and would disconnect neighborhoods to the north and south of the freeway. Many participants mentioned the importance of the Hawley Road Interchange to local residential and business areas and said access should be maintained.

Many participants were not concerned about the potential downgrade of the Stadium Interchange as long as it did not cause traffic congestion along US 41 and Miller Parkway. Although some participants felt the full system interchange should be constructed to make sure Miller Parkway is not impacted since it already experiences congestion.

Some participants discussed the need to improve access to I-94 from central city neighborhoods in Milwaukee that currently do not have convenient access to the regional freeway system. They stated that improvements to US 41 and Lisbon Avenue in combination with the freeway project would have a more beneficial effect on economic development for areas to the north of the freeway in the city. Many people along the Lisbon Avenue and North Avenue corridors as well as the 30th Street industrial corridor rely on US 41 for access to I-94.

Some participants felt that the existing access points along the east leg are hindering the economic development potential of areas to the south of I-94. Several participants felt that the proposed east leg interchange alternatives do not adequately address the access concerns in this area. Some participants felt that the access ramp that links to 25th Street should be maintained because 25th Street provides the most convenient access to the Menomonee Valley businesses and attractions. Also, it provides an alternate route when 13th Street is blocked by trains. At least one stakeholder advocated for a ramp off 35th Street that would provide a direct connection to Canal Street to improve access to the Menomonee Valley businesses and attractions. Many participants felt that improved access to 27th Street would help facilitate redevelopment efforts to the north of I-94 in the Avenues West neighborhood.

Local Arterials

Many participants felt that the lack of capacity on the freeway is causing congestion on the local arterials. They felt that adding additional travel lanes to the freeway would reduce congestion on the arterials and help facilitate economic development along these corridors. Less traffic would make parking easier, could improve pedestrian mobility and ultimately reduce the vacancy rates of businesses along the arterials. Corridors that seemed particularly affected by traffic congestion based on comments include National Avenue, Bluemound Road and Miller Parkway. At least one participant felt traffic on the arterials was heavy during commuting hours, but that frequent traffic signal spacing was the main cause of congestion along the local corridors.

No-Build Alternative Land Use Effects

Many participants did not think there would be much difference in land use patterns between the Modernization Alternative and the No Build Alternative. Some participants said the businesses along the arterial routes would not benefit from less traffic and some participants said increasing congestion under the No Build alternative would make it more challenging to market available development sites within the primary study area. A few other participants said modernization without new travel lanes would provide a more balanced approach that would maintain access/improve safety, but have less land use impacts and less neighborhood impacts.

Factors Influencing Development

The participants discussed several factors that are influencing development in the primary study area. Some participants said that brownfields make redevelopment more challenging within the primary study area. Also, parcels that are not well connected to the local street network are difficult to develop.

Many factors within the primary study area are facilitating development including:

- New housing developments that spur retail development.
- Spill over development from fast growing neighborhoods like the Third and Fifth Wards.
- Population density that creates buying power for retail development.
- Close proximity to workers.
- Close proximity to jobs and shorter commutes.
- Walkable neighborhoods.
- More transportation options including transit, walking and bicycling.

Some participants discussed that the main limitation to retail development in western Waukesha County is the lack of population density.

Project Design Features

Some participants expressed concerns about some of the project's design features that may affect the quality of life in the adjacent neighborhoods, particularly o the west side of the corridor. They felt visual impacts, noise, air quality, traffic in residential areas and property acquisitions would diminish the quality of neighborhoods adjacent to the freeway. Some participants felt that a six- lane modernization alternative or a combination of modernization/spot improvements would be a more balanced approach that preserves access and reduces neighborhood impacts. They indicated that it would be helpful to compare the impacts of six lanes versus eight lanes.

Participants discussed the proposed bridge structure on the east leg that could be constructed to realign the mainline of I-94 in this section. Some participants were concerned that this structure would create an unpleasant environment and attract nuisance activities. They felt that it would hinder the planned redevelopment of the St. Paul Avenue corridor in the Menomonee Valley and create a blighting influence for many years after it is constructed. It would also diminish one of the main entrances to the Menomonee Valley along 25th Street.

Some participants discussed that the freeway creates a barrier between the neighborhoods on the north and south sides. They felt the north side neighborhoods would benefit from more connectivity to the south side to improve access to recreational amenities such as the Hank Aaron State Trail.

A few participants were also concerned about the visual barrier the double deck cemetery option would create between the cultural and historic resources at the VA and cemeteries.

Environmental Justice Effects

A large portion of the state's low-income and minority populations live in the primary study area and in the city of Milwaukee in general. Poverty on the north side of Milwaukee is related to a lack of access to jobs. It is difficult for these residents to access suburban job markets that have spread west along I-94 and north along I-43/US 45. Residents in these neighborhoods have low vehicle ownership rates, low rates of valid driver's licenses and the region does not have regional transit that make it easy to travel between counties.

Several participants felt access to the freeway was important for environmental justice populations living to the north and south of the freeway. Access to the freeway is important for minority owned businesses that rely on access to the freeway and for residents that need to utilize the freeway to access employment and goods and services. Some participants discussed that access to I-94 from central city neighborhoods is challenging due to poor pavement conditions along Lisbon Avenue and US 41. Improvements to arterial streets that connect with I-94 would help improve freeway accessibility to central city neighborhoods and help encourage neighborhood retail services.

Many participants indicated that transit is essential to get people to jobs and that transit should be provided on a regional basis. At least one participant noted that capacity expansion would be less of a concern if

regional transit was being implemented and if people weren't trying to stop projects like the Milwaukee Streetcar.

Natural Resources

A few participants said they were concerned about potential indirect and cumulative effects to the river system from an increase in impervious space and an increase in stormwater runoff. They said the highway is contributing to the pollutant load of the river system and an increase in the volume of water is impacting the Menomonee River. Increases in water volume have the potential indirect and/or cumulative effects:

- Increases the velocity of rivers and reduces public safety.
- Increases the erosion of stream banks and could impact recent stream restoration projects undertaken by MMSD.
- Increases in erosion impacts the viability of utilities that are located along streams.
- Increases the likelihood of flooding existing and planned development.
- Makes it more challenging for fish to travel upstream.

At least one participant suggested using lands that would become available from the realignment of the freeway mainline on the east leg for stormwater management.

ATTENDANCE RECORD
I-94 East-West Freeway Corridor Study

Indirect and Cumulative Effects Focus Group

Thursday, June 6th; 9:00 AM - 12:00 PM
STOC - Empire Builder Conference Room

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Attendee Name	Representing	Phone Number	Email Address
Dianne Eineichner	Downtown West Allies	414-774-2676	director@downtownwestallies.org
Monica Waucic	WisDOT	414-750-4742	monica.waucic@dot.wi.gov
Chris Hiebert	SEWRPC	262-547-6721	chiebert@sewrpc.org
Bethaney Bacher-Gresock	FHWA	608-662-2119	Bethaney.Bacher-Gresock@dot.gov
Mike Brockman	Miller Park	414-588-7931	mbrockman@thesigmagroup.com
Dan Adams	Layton Boulevard West Neighbors	414-383-9038	daniel@lbwn.org
Paulette Enders	City of Wauwatosa	414-479-3531	penders@wauwatosa.net
Debra Jensen	MMSD	414 225 2143	djensen@mmsd.com
Jason Tolleson	Harley-Davidson	262-343-4134	jason.tolleson@harley-davidson.com
Kyle Harmon	Summit City Council	414-~~[illegible]~~ 475-3570	kharmon@summit-city.com
Teig Whaley-Smith	Milwaukee County	414 [illegible]-4185	teig.whaley-smith@milwcnty.com

ATTENDANCE RECORD
I-94 East-West Freeway Corridor Study

Indirect and Cumulative Effects Focus Group

Thursday, June 6th; 9:00 AM - 12:00 PM
STOC - Empire Builder Conference Room

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Attendee Name	Representing	Phone Number	Email Address
Maria Pandazi	City of Milw - DCD	414-286-5836	mpanda@milwaukee.gov
Ken Yunker	SEWRPC	262-547-6721	kyunker@sewrpc.org
Randy Crump	African American Chamber	414 847 0990 x104	rcrump@prismtechnical.com
Peter McMullen	WDNR	414-263-8751	peter.mcmullen@dwi.gov
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ATTENDANCE RECORD
I-94 East-West Freeway Corridor Study

Indirect and Cumulative Effects Focus Group

Thursday, June 6th; 9:00 AM - 12:00 PM
STOC - Empire Builder Conference Room

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Attendee Name	Representing	Phone Number	Email Address
Corey Zefts	Menomonee Valley Partners	274-4655	Corey@RenewTheValley.org
JOHN STALEWSKI	VILLAGE OF WEST MILW	643-7949	JSTALEWSKI@GOODMANRUBBER.COM
Shannon L. Jefferson	Gibraltar Industries Inc AMEC	(414) 460-8040	sjeg@gibraltarindustries.inc.com
Jim Plaisted	Waukesha		
BART GRIEPENTROG	CITY OF WEST ALLIS	414 302 8469	bgriepentrog@westalliswi.gov
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Appendix C: Stakeholder Meetings with Private-Sector Real Estate Professionals

I-94 East-West Corridor Study
Indirect and Cumulative Effects
Meeting Minutes for Real Estate/Developer Meetings

A series of meetings were held with local real estate professionals as part of the indirect and cumulative effects analysis. The purpose of the meetings was to obtain input from private sector real estate firms on potential land use and development changes that could occur as a result of the No Build and Modernization Alternatives for the I-94 East-West corridor. Some of the key discussion points that came out of the meetings include:

- Convenient and easy to understand access is the most important factor for supporting existing business areas that are served by the freeway corridor.
- The elimination of the Hawley Road interchange would severely hamper West Allis' economic development and job creation goals and could diminish the value of existing development that relies on the access.
- The C-D roads proposed for the west segment are not expected to hinder development in West Allis or Wauwatosa. It is a matter of a new learned behavior.
- Adding new travel lanes would help facilitate development in the communities that surround the corridor and in downtown because people and employers avoid areas that are congested.
- The at-grade cemetery section would affect safety and traffic flow, which would diminish the benefits of reconstructing and expanding the freeway.
- Consolidating access at 27th Street would improve access on the east segment and help the Layton Boulevard West and Avenues West neighborhoods.
- No concerns were raised about the single-point interchange alternative proposed for the Stadium Interchange.
- Adding new travel lanes is not likely to spur development outside existing urbanized areas. Infill development areas in downtown and the first and second tier suburbs are most desirable. Developers do not want to risk investments in areas such as western Waukesha County that are too distant from the population base, especially since the economic recession. Employers want to be close to the work force and retailers want to be close to customers. This is why Pabst Farms in Oconomowoc has been struggling to attract development.

The following table lists the meetings that were held and the subsequent sections summarize the comments that were made at each meeting.

Name	Company	Project staff in attendance	Date/Time	Meeting Location
Sean Phelan	Phelan Development	Jason Lynch, WisDOT; Charlie Webb, CH2M Hill, Carolyn Seboe, HNTB	August 1, 2013; 9 a.m.	Colectivo cafe (former Alterra) 68th and Wells Street, Milwaukee, WI
David Merrick	Irgens	Jason Lynch, WisDOT; Andrew Rohde, WisDOT; Charlie Webb, CH2M Hill; Carolyn Seboe, HNTB	August 7, 2013; 9;30 a.m.	HNTB office 11414 W Park Place, Suite 300, Milwaukee, WI
Sig Strautmanis	General Capital Group	Jason Lynch, WisDOT; Andrew Rohde, WisDOT; Carolyn Seboe, HNTB	August 7, 2013; 11:00 a.m.	General Capital Group Office, 6938 N. Santa Monica Blvd, Fox Point, WI
Robert Simi	Miron Construction; Wauwatosa Economic Development Advisory Committee	Andrew Rohde, WisDOT; Charlie Webb, CH2M Hill Carolyn Seboe, HNTB	August 7, 2013; 1:30 p.m.	Miron Construction Office, 10700 Research Drive, Milwaukee, WI
Rod Rinzel; Steve Caveney; Daniel Lee; Joel Lee	Van Buren Management	Jason Lynch, WisDOT; Carolyn Seboe, HNTB	August 14, 2013; 2:30 p.m.	Van Buren Management Office, 788 N. Jefferson Street, Suite 800 Milwaukee, WI

Sean Phelan Meeting Summary

- Sean does real estate investment and consulting mostly in the eastern half of Wauwatosa. He was an investor for this Alterra (now Colectivo) café.
- Wauwatosa is thriving as the next generation of people and young families move into the city. This has helped to push redevelopment along North Avenue and State Street. Wauwatosa residents tend to be loyal to local businesses.
- US 41 is an important access point for the eastern side of Wauwatosa and Bluemound, State and North provide east-west connections. 68th Street is also important for Wauwatosa. If no interchange at Hawley Road it would create less direct access for Vliet Street. Hawley is less critical for Wauwatosa, but it would be more important for West Allis businesses. Maintaining existing access points is important because people are used to it.
- In regards to the collector-distributor roads on the west leg, Sean felt shorter ramps are best, but it is more important to provide safe access. The collector-distributor ramps will require people to learn a new behavior, but will be safer for people to get off the freeway sooner.
- When asked about the land use effects of freeway capacity expansion, Sean felt convenient and safe access points were most important for local business corridors. He felt the speed of the freeway was less important. He is a city grid person and avoids the freeway. He feels it is important to get people to the city grid because traffic on the grid exposes businesses to potential customers. Finding ways to get people to the grid is more important than how fast the freeway flows. When people slow down they realize what shops are there. He would like to see more cars on North Avenue.
- He was uncertain if the freeway capacity expansion would induce development in Waukesha County. Overall, he did not think it would have a negative effect on Wauwatosa because many other factors are driving development in the city such as young families moving to Tosa. He thought more local business signage on the freeway may encourage Waukesha County residents to visit Milwaukee County businesses.
- Sean suggested meetings with Van Buren Management who owns the Renaissance building in West Allis to discuss the local business effects of closing Hawley Road. Dan Lee is the contact.

David Merrick Meeting Summary

- David Merrick works for Irgens. His office is in the Milwaukee County Research Park. Irgens buys, develops and manages commercial properties. They are long-term holders of properties. They have properties in downtown, Wauwatosa, Brookfield, Waukesha, Pewaukee, Madison. They also work in Arizona and Illinois.
- David said there is currently a perception that it is not easy to get downtown. (Traffic congestion is not bad here in comparison to other cities.) He feels if it is easier to get to downtown, people may be willing to do businesses in downtown.
- Some businesses in Waukesha don't want to locate in downtown because they are worried about losing employees that live in Waukesha.
- The Menomonee Valley is hard to access due to the existing confusing access points. The businesses in the valley are destination type businesses.
- When asked about potential changes to land use and development as a result of adding lanes on I-94 in Milwaukee and Waukesha counties, David said you don't see greenfield developments popping up, especially coming out of the recession. Developers are looking for infill sites that have existing services and are in close proximity to existing workforce and population base. If you get too far west in Waukesha County you distant yourself from the employment base. Retailers also want to be close to population densities. Pabst Farms in Oconomowoc is trying to attract development, but it is too green.
- David gave examples of the type of infill developments that are currently happening. The Burleigh Triangle in Wauwatosa (US 45 and Burleigh) is an infill redevelopment project at the former Roundy's warehouse. It is being called the Mayfair Collection and will have a Nordstrom Rack as an anchor. Irgens recently purchased the 66-acre Ruby Farm site in Brookfield. He considers this a greenfield infill site (undeveloped land that is within exiting urban area). Plans are being developed, but he expects at least 1 million square feet of office, retail and medical uses will be built. The UWM Innovation campus (northeast corner of Milwaukee County grounds) is another example of an infill development that is underway.
- Developers jump on infill sites that aren't encumbered. Environmental contamination is not that big of a deal today.
- When asked about how transit influences employer's location decisions, David said it is a factor that they take into consideration, but it depends on the type of business. Transit access is very important for back office, blue collar and industrial businesses.

- The loss of the Hawley Road interchange would be a problem from a real estate standpoint especially for West Allis, but also provides good access to State Street in Wauwatosa.
- Wauwatosa is very centrally located, which is good for employers. They are surrounded by population densities in all directions.
- Downtown is limited by the lake, but has its own market and is seeing lots of activity. Examples include a new Northwestern Mutual Life Insurance office tower, The Couture hotel/apartment tower and the Irgens 18 story office building at 833 E Michigan Street.
- The first and second ring suburbs (Wauwatosa, New Berlin and Brookfield) are seeing a lot of activity for office, retail and industrial and it is likely to continue.

Sig Strautmanis Meeting Summary

- Sig is a partner at General Capital Group. They are a small development firm that has a commercial, industrial and multifamily housing portfolio. Sig primarily focuses on affordable and supportive housing projects in the Milwaukee area including city of Milwaukee, West Allis and Brown Deer. He partners with local groups such as the School Sisters of St. Francis, Jewish Family Services and other nonprofits.
- Project examples include:
    - Mcauley apartments – St Catherine Residence (supportive housing), downtown Milwaukee
    - Hide House in Bayview, Milwaukee
    - Beerline B Apartments on Commerce Street in Milwaukee
    - Berkshire in West Allis (senior apartments, first floor retail)
    - Pick N Save and Menards in West Milwaukee (Miller Park Way)
    - Senior housing in West Allis (Greenfield and 65th Street/Six Points)
    - Reed Street Yards – 14 acre planned urban office, educational and research zone focused on attracting water-related businesses. Near downtown Milwaukee along south bank of Menomonee River and 6th Street.
- The proposed design for the 68th/70th street interchange with C-D roads is a matter of people getting used to the new movements. He does not believe it would affect local business districts.
- The alternative that relieves the most congestion for through movements would benefit local economic development the most. If it is challenging to get to businesses people will avoid an area. From a business perspective reducing congestion is a benefit.
- Maintaining connectivity is important. Closing Hawley Road interchange would not be a concern for residential areas, they would drive the extra blocks. However, it would be a concern for business districts. Hawley is a way for people to get to the Six Points area in West Allis.
- The retail in West Milwaukee along Miller Parkway relies on smooth traffic flow for regional retail destinations. Commercial development along Miller Parkway is likely to continue. The community was aggressive in pursuing development and used TIF to encourage redevelopment.
- West Allis is benefiting from people moving back to the city, this trend will continue. They also benefit from amenity rich neighborhoods (Six Points) and good freeway access and freeway capacity.
- Substantial investments are occurring downtown Milwaukee. The apartment market is exploding.
- Consolidated access at 27th Street would benefit the Layton Boulevard West and Avenues West neighborhoods. Clean and easy access would present an opportunity to enhance a gateway to the neighborhoods. The current access is confusing.
- The interchange configuration for Hawley Road is not ideal, but other options would impact adjacent residences. Closing Hawley Road interchange would diminish the economic development potential of West Allis.
- Sig was not concerned about the single point interchange option for the Stadium Interchange. He felt the alternative actually cleans up access and makes it easier to understand.
- Sig felt that the freeway should be reconstructed in such a manner that would allow the flexibility to accommodate transit someday. Transit is very important for citizens that do not own vehicles.

Robert Simi Meeting Summary

- Robert works for Miron Construction as a commercial builder and he serves on the City of Wauwatosa Economic Development Advisory Committee. It is a high level policy committee that is making recommendations to the city on how to streamline the city processes to encourage thoughtful redevelopment.
- The city wants to encourage redevelopment to help increase the City's tax base. They have divided the city into 11 redevelopment areas that could add $2 to $3 billion in revenues. They are banking on Tosa's position in the region and the desirability of the community to increase development and minimize the use of TIF.
- County Grounds – the northeast quadrant is moving forward with development now. Bob would like to see the city be proactive on the northwest quadrant. It has the potential to generate $250-$300 million of private investment. It will be watered down somewhat by the high tension power lines. Need to make sure parcels are ready for development and get out of the way of the private sector.
- He does not feel adding capacity would decrease the competitive nature of urban areas. He feels this is a flawed argument. Congestion is a sign of a strong economy, but too much congestion can diminish economic development potential. Bob is not concerned about the freeway project taking traffic off the arterials. It will make Tosa more accessible form the east and west.
- Robert suggested the I-94 team should meet with NAIOP, the state's professional organization for commercial developers. They have a good pulse on every available parcel in the region.
- Robert said he is not concerned about the C-D roads proposed for 68th/70th street interchange. He said it still provides convenient access for Wauwatosa. He also did not have any concerns about the single-point alternative for the Stadium Interchange.
- Robert said he believes the I-94 Modernization Alternative which includes capacity expansion would enhance Wauwatosa and help it achieve its economic development goals. He feels the I-94 project is consistent with Wauwatosa's economic development goals.

Van Buren Management Meeting Summary

- The at-grade option in the cemetery section defeats the safety purpose of the project. It seems dangerous to have narrow lane widths. It would do nothing for traffic flow and it would increase accidents. It is counterproductive, might as well reconstruct as is. The at-grade option is even worse since it does not provide a connector/frontage road between Hawley and 68th/70th streets like some of the previous alternatives.
- If you are creating a bottleneck at the cemetery segment and not providing a connector road between Hawley and 68/70, why make capacity improvements elsewhere.
- If Hawley Road is closed it will increase traffic on local roads like 68/70 streets, Wisconsin, Wells and National. Increased traffic would come from residents and employees that would need to travel on local roads to reach alternate interchange locations.
- Van Buren Management owns the Renaissance Faire building located at 801 S. 60th Street in West Allis. It was a former Sam's Club. They recently renovated the building to attract new office tenants and add up to 200,000 square feet of new space. The project was just finished and tenants are moving in. Tenants include Wheaton Franciscan, CBS-affiliate WDJT-TV (Channel 58) and US Bank. The building contains about 400,000 square feet of office space.
- The Renaissance building is very important for the redevelopment of the city of West Allis which was devastated by the loss of manufacturing jobs over previous decades. The building has created a gateway to the city and created an opportunity to create new jobs in the community. The loss of Hawley Road interchange would devastate West Allis.
- Employers are attracted to West Allis for back office functions. The high density residential areas provide a large labor pool for employers to draw from. Also, the area's convenient freeway access at Hawley Road and its close proximity to downtown, allows employees to travel easily between the back office functions in West Allis and the office functions in downtown Milwaukee.
- Van Buren Management said tenants of the Renaissance Faire building have said they would move out of the building if the Hawley Road interchange was eliminated. The tenants made the decision to invest in this location because of the freeway access.
- The removal of the Hawley Road interchange would also devastate Bally's, which is located next to the Renaissance building. The loss of Bally's would make the area less desirable for the remaining tenants. The Bally's parking lot has about 2,000 cars per day.
- Van Buren Management would consider talking with WisDOT about acquiring the WisDOT service facility just south of the Renaissance Faire building along 60th Street because they see the potential for additional office tenants in this area and the service facility is not the best use. However, they will not make additional investments in the area if the Hawley Road interchange is closed.

- Most of Van Buren Management's portfolio is in downtown Milwaukee. They feel improving traffic flow along I-94 would help downtown. If travel times to downtown increase it makes areas outside downtown more attractive to development. For example, Northwestern Mutual looked at the I-43 corridor, but decided the bottleneck near Bender Road would limit mobility. They looked where freeway accessibility was the best and they chose Franklin. Employees would be more productive and spend less time in traffic.
- Van Buren Management strongly felt the double deck option should be selected to improve safety and traffic flow. Maintaining Hawley Road interchange is also very important to the redevelopment of West Allis and to maintain the viability of the Renaissance Faire building. They did not feel the cost of the double deck option should be the deciding factor because it is not that great when considered over the 50 year lifespan of the freeway infrastructure.

Notes prepared by Carolyn Seboe, HNTB

Appendix D: Downtown Stakeholders Meeting Summary

I-94 East-West Corridor Study
Indirect and Cumulative Effects
Meeting Minutes for Stakeholder Interviews

Meeting	Downtown Stakeholders – City of Milwaukee DCD; Downtown BID; Milwaukee County Economic Development; Historic Third Ward
Date, Time	August 29, 2013; 10 a.m.
Location	City of Milwaukee Department of City Development, 809 N Broadway
Attendees	Greg Patin, DCD Steve Looft, Downtown BID Nancy O'Keefe, Historic Third Ward Association Emily VanDeraa, Milwaukee County Economic Development Jason Lynch, WisDOT Monica Wauk, WisDOT Carolyn Seboe, HNTB

Meeting Summary

A meeting was conducted with downtown stakeholders to discuss indirect and cumulative effects for the I-94 East-West Corridor Study. The I-43 North-South Corridor Study was also discussed.

The following is a summary of the comments that were made at the meeting:

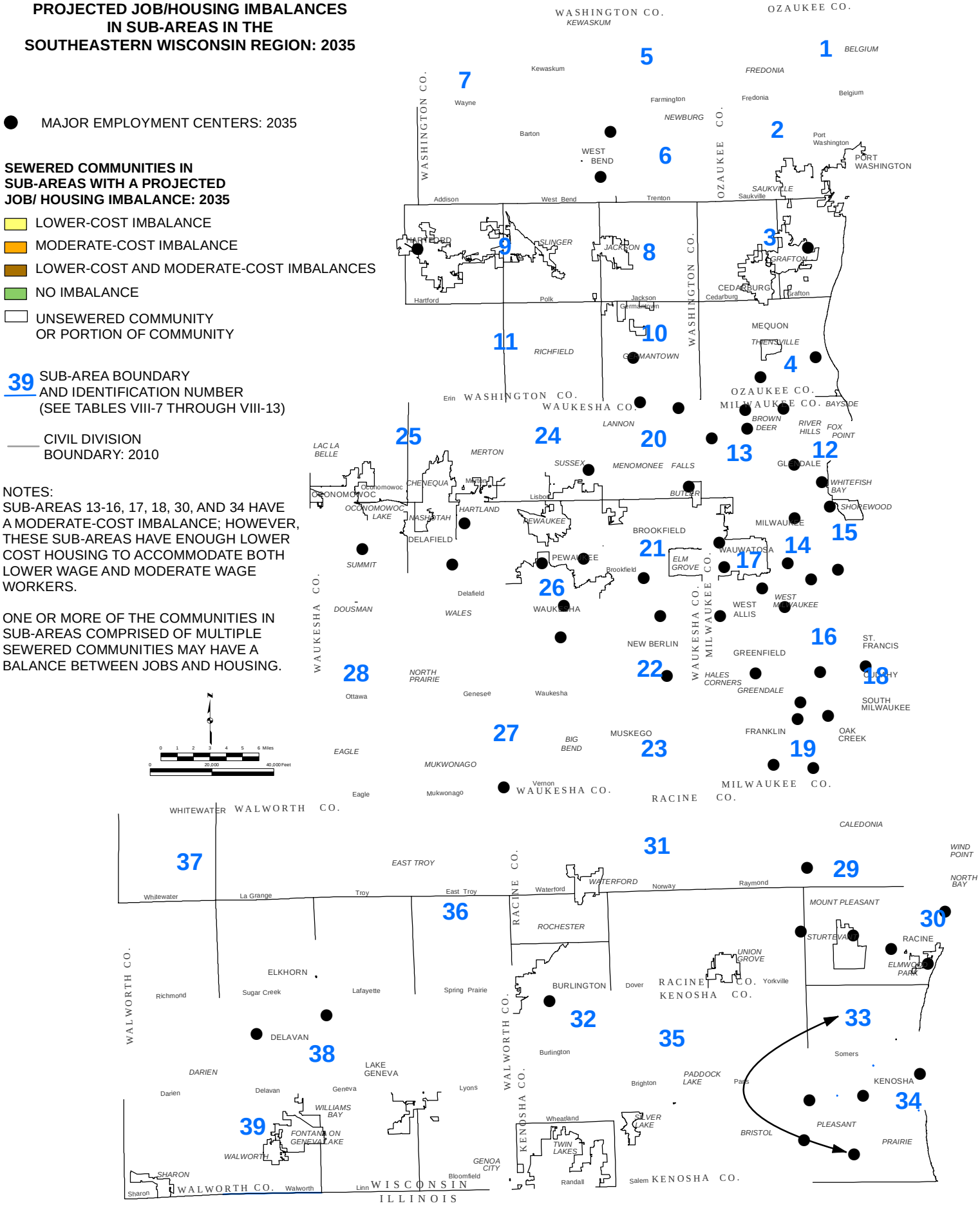
- Greg asked about the potential to develop the land that would be vacated by the realignment of the freeway on the east leg. Jason said it would no longer be needed for freeway use, but grade changes would need to be overcome.
- The city is coordinating with WisDOT on the Lake Interchange project. The project will free up land in downtown and the Third Ward. Several large developments are pending in this area such as the Couture hotel/apartment tower.
- The city is looking for opportunities to fill land that was left vacant by the Marquette Interchange. Exploring recreational uses.
- Infill development is occurring in downtown. Apartment development is strong right now. 100 units is a common scale for apartment developments.
- The Brewery (former Pabst Brewery) continues to grow and attract development.
- The west side of downtown and along Wisconsin Avenue is an area of concern, but also an area of interest. This area will see change. More residential growth is anticipated. The area needs a demographic shift to encourage redevelopment.
- Downtown Milwaukee is very stable. It experiences losses, but also gains. Slow growth, but comfortable, making progress. Not like Sunbelt growth.
- Downtown has about 80,000 jobs – this number has remained stable. Fortunate to not be like some cities that continue to lose jobs.
- The younger generation (22 to 33 year olds) is very interested in living downtown and being close to its amenities. They tend to stay local and utilize downtown businesses. Employers should understand this shift when considering business locations.
- The success and energy of the Third Ward is spilling over to the south and renovations are occurring in the Fifth Ward. The Third Ward continues to grow and has opportunities to development large parking lot areas.
- The city is trying to improve the aesthetics/lighting of the passage under I-794 between the Third Ward and downtown. Improving the connection will help the energy of the Third Ward move north.

- Park East corridor – land to the east of the river is mostly developed or will be. MATC is finishing a parking lot and a housing development at Ogden and Broadway. The county is evaluating options for the west side of the corridor. They are considering marketing the parcels for private development or reserving the land for a potential Bradley-like public/quasi-public use.
- The city is a long land mass and has many different exciting places, but the areas in between those places can be uninteresting. Goal of the downtown plan is to improve those the connections between the activity centers and encourage people to move between the activity centers. Greg did not think the I-94 E-W alternatives would affect this goal.
- The Italian Community Center in the Third Ward is seeking development opportunities within their parking lots.
- The Reed Street Yards is a planned development that is seeking water based research/technology firms and light manufacturing.
- Steve Looft felt improved traffic flow along I-94 would benefit downtown by improving the connection between downtown and the western suburbs. Better traffic flow would encourage business owners to consider downtown locations and would help existing businesses recruit employees. Currently employers are concerned employees won't want to travel along I-94 to get to work.
- Steve acknowledged the bottleneck on I-43 at Bender, but didn't think the traffic congestion between downtown and the northern suburbs was as bad as I-94. He felt the lakefront route provides a convenient and fast connection to Mequon and other north shore communities. Nancy on the other hand felt the congestion was challenging on I-43 and it made it difficult to conveniently access downtown. Steve hears most complaints about the I-94 corridor from downtown businesses.
- Greg Patin said freeway capacity expansion could make it easier for downtown residents to shop at retail centers in the suburbs and avoid downtown retailers.
- Steve felt that people live in downtown because they want the amenities downtown has to offer that you can't find anywhere else.
- Greg said it is challenging to forecast the land use effects of the freeway. There are so many factors that are in play regarding development. The freeway is not all bad and not all good. Many decisions come into play for development. Metro Milwaukee is not growing much; rising gas prices may influence people's decisions.
- Steve said data and trends show slow, but steady growth in downtown (1 to 1.5%). It is an international movement that people are choosing to live in urban environments.
- A lot of reverse commuting is going on. People living in downtown are commuting to the suburbs. Employment areas are spread across the region, not all in downtown.
- Steve and Nancy felt the easier it is to get people to downtown the better it will be for downtown investment. Need to make sure people can get in and out of downtown.
- More power thinkers/executives are living in downtown. This has helped to change regional trends of where people live and work.
- The speed limits on the freeway would remain the same.
- Greg would like to share the design plans with some of his coworkers and have an internal discussion on this topic. He will let us know if DCD has any additional comments.

Notes prepared by Carolyn Seboe, HNTB

Appendix E: Projected Job/Housing Imbalances in Southeastern Wisconsin: 2035

Map VIII-11
PROJECTED JOB/HOUSING IMBALANCES IN SUB-AREAS IN THE SOUTHEASTERN WISCONSIN REGION: 2035



Source: Local Government Comprehensive Plans and SEWRPC.